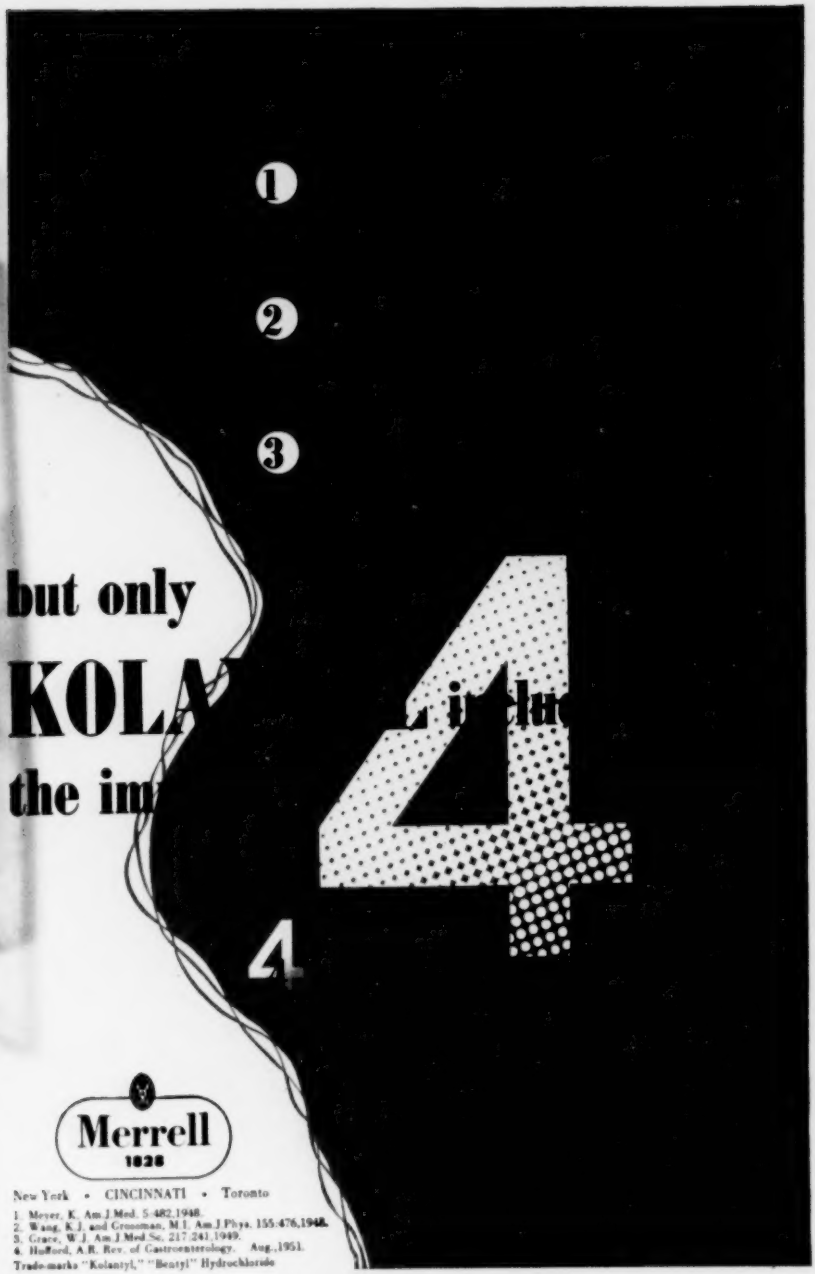
FEBRUARY 1, 1952

MODERN MEDICINE

The Journal of Diagnosis and Treatment

Dr. J. Albert Key *(see page 11)*

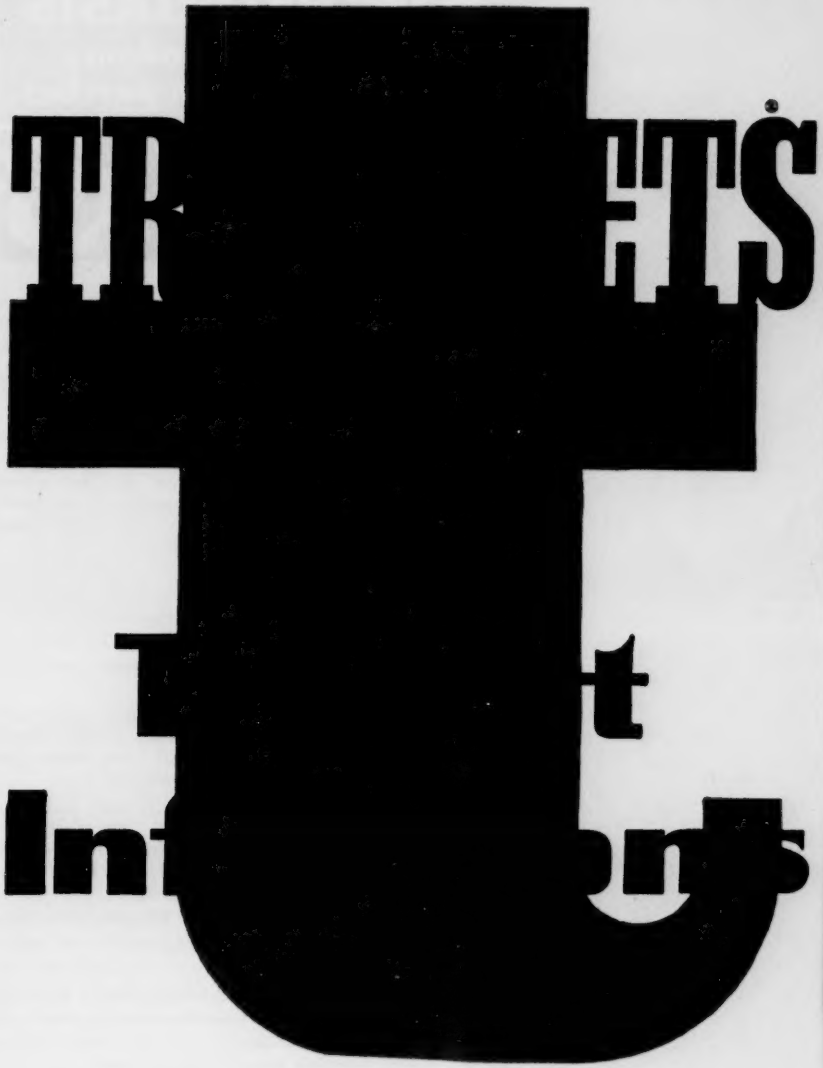
Table of contents page 11



Merrell
1828

New York • CINCINNATI • Toronto

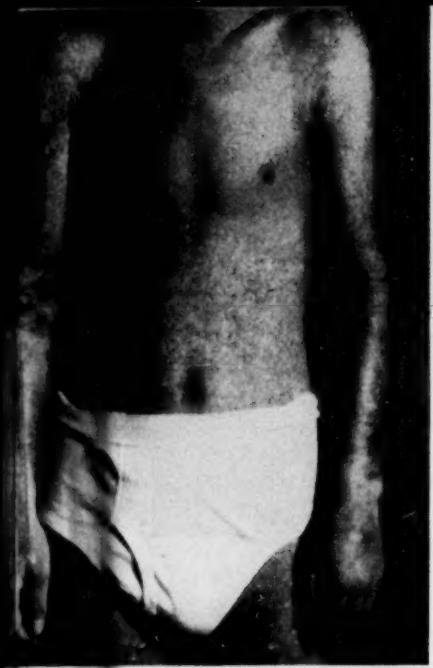
1. Meyer, K. Am.J.Med. 5:482,1948.
2. Wang, K.J. and Grossman, M.I. Am.J.Phys. 155:476,1948.
3. Grace, W.J. Am.J.Med.Sc. 217:241,1949.
4. Hofford, A.R. Rev. of Gastroenterology. Aug.,1951.



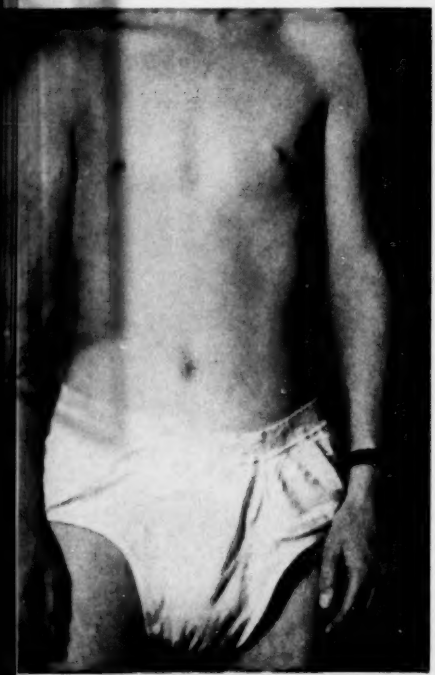
TRACINETS® Troches provide effective topical treatment for mild throat and mouth infections. Containing 50 units of bacitracin and 1 mg. of tyrothricin, these pleasant-tasting troches exert a synergistic antibiotic effect for more rapid and effective clinical control of certain susceptible throat infections. TRACINETS Troches also contain benzocaine to relieve local irritation and discomfort. Supplied on prescription only. Vials of 12.

Sharp & Dohme Philadelphia 1, Pa.

SHARP & DOHME



BEFORE Use of RIASOL



AFTER Use of RIASOL

IN PSORIASIS despondency and skin patches both clear up with RIASOL

Despondency, severe neuroses and even suicide may result from the humiliation caused by psoriasis. Hence the best treatment for the mental condition is to clear up the disfiguring skin patches with effective local treatment.

RIASOL does double duty. **Directly,** it clears up or greatly improves the cutaneous lesions of psoriasis in the great majority of cases. **Indirectly,** it removes the psychological cause of the despondency and neurosis.

RIASOL is effective because of its deep action in the layers of the epidermis where the lesions of psoriasis are located.

RIASOL usually acts fast, clearing up the skin patches in an average period of less than 8 weeks.

RIASOL contains 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in a washable, non-staining, odorless vehicle.

Apply daily after a mild soap bath and thorough drying. A thin, invisible, economical film suffices. No bandages required. After one week, adjust to patient's progress.

Ethically promoted **RIASOL** is supplied in 4 and 8 fld. oz. bottles, at pharmacies or direct.

MAIL COUPON TODAY—TEST RIASOL YOURSELF

SHIELD LABORATORIES Dept. MM 2-52
12850 Mansfield Ave., Detroit 27, Mich.

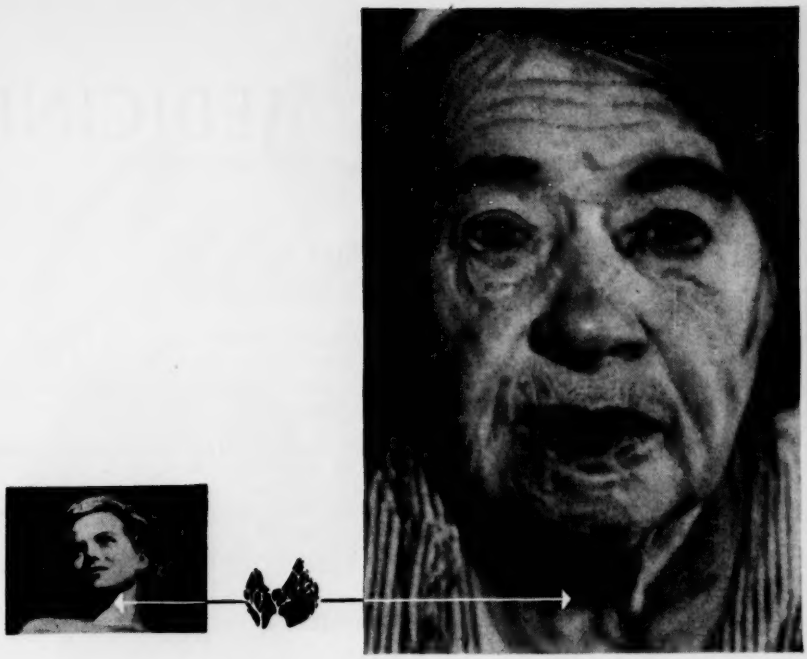
Please send me professional literature and generous clinical package of RIASOL

.....M.D.....Street

City.....Zone...State.....

Druggist.....Address.....

RIASOL FOR PSORIASIS



common denominator

As different as they look, and are, they have in common a deficiency in thyroid function—and a common need for metabolically uniform and dependable thyroid replacement therapy.

Whether thyroid is needed for dramatic therapy in myxedema, or for more subtle adjustment of the vague, incompletely manifested signs of subclinical hypothyroidism, Proloid supplies predictable therapy free from

the one extreme of jitteriness, tachycardia and nervousness due to unwitting overdosage

or the other extreme of recurrent hypothyroidism due to unwitting underdosage.

unvarying metabolic effect: Every lot of Proloid is metabolically pre-tested and potency variations are eliminated *before,* not manifested *after,* administration to the patient.

Highly purified: Proloid is virtually pure thyroglobulin of full metabolic potency, yet free of unwanted organic matter.

Doubly assayed: Proloid is chemically assayed in conformity with U.S.P. standard of 0.2% iodine and is biologically assayed in test animals.

Proloid is prescribed in the same dosage as ordinary thyroid.

Proloid® the improved thyroid

Available in 5 tablet sizes: ½, ¼, 1, 1½, and 5 grains and in powder form.

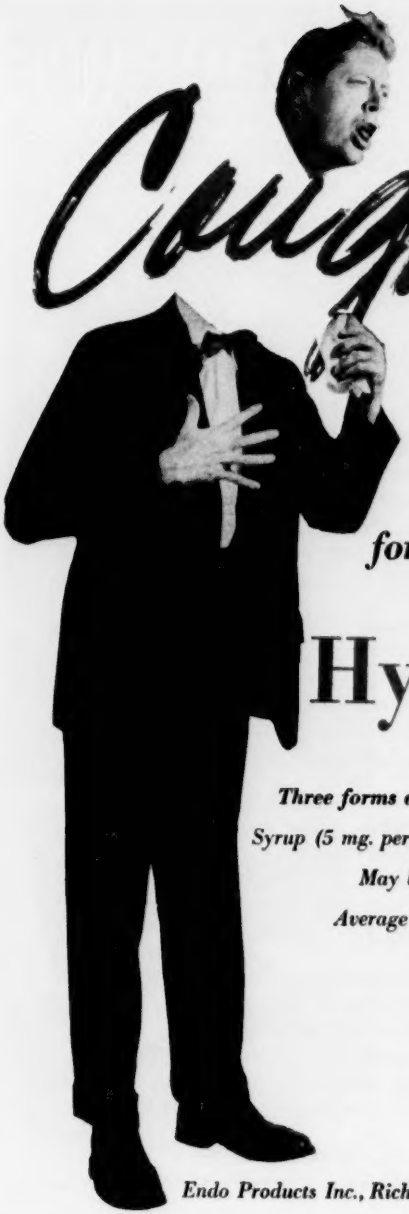
CHILCOTT *Laboratories* ..... The Maltine Company

MORRIS PLAINS, NEW JERSEY

MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

Published twice monthly by Modern Medicine of Minneapolis, Minn., at Hart Publications, Inc., of Long Prairie, Minn. Acceptance under section 34.64, P. L. & R., authorized.



Coughing your head off!

for effective cough therapy

Hycodan® BITARTRATE

(Dihydrocodeinone Bitartrate)

Three forms available: Oral Tablets (5 mg. per tablet),
Syrup (5 mg. per teaspoonful), Powder (for compounding).
May be habit forming; narcotic blank required.
Average adult dose 5 mg. Literature on request.

Endo®

Endo Products Inc., Richmond Hill 18, N.Y.

MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

Gantrisin 'Roche'

antibacterial action plus...

greater solubility

Gantrisin is a sulfonamide so soluble that there is no danger of renal blocking and no need for alkalinization.

higher blood level

Gantrisin not only produces a higher blood level but also provides a wider antibacterial spectrum.

economy

Gantrisin is far more economical than antibiotics and triple sulfonamides.

less sensitization

Gantrisin is a single drug—not a mixture of several sulfonamides—so that there is less likelihood of sensitization.

GANTRISIN®—brand of sulfisoxazole
(3,4-dimethyl-5-sulfanilamido-isoxazole)

TABLETS • AMPULS • SYRUP

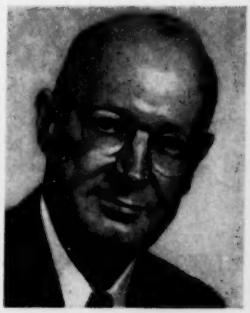
HOFFMANN-LA ROCHE INC.

Roche Park • Nutley 10 • New Jersey

TABLE *of* CONTENTS

for February 1 1952

Modern Medicine
Vol. 20, No. 3



THE MAN ON THE COVER is Dr. J. Albert Key of St. Louis, Clinical Professor of Orthopedic Surgery at Washington University and orthopedic surgeon to Barnes, Jewish, Children's, and St. Louis City hospitals. Dr. Key is a member of the American Academy of Orthopaedic Surgeons, American Rheumatism Association, American Orthopaedic Association, and the Clinical Orthopaedic Society. A frequent contributor to medical journals, he has written numerous articles on bone and joint surgery. The report on page 115, "Antibiotics and Compound Fractures," appeared originally in the *Journal of the American Medical Association.*

Contents for February 1 1952

CONTINUED

Contents for February 1 1952

CONTINUED

MODERN MEDICINE, The Journal of Medical Progress, of Minneapolis, Minn., is published twice monthly on the first and fifteenth of each month, at Hart Publications, Inc., of Long Prairie, Minn. Subscription rate: $5.00 a year, 25c a copy. Business Manager: M. E. Herz. Address editorial correspondence to 84 South 10th Street, Minneapolis 3, Minn. Telephone: Bridgeport 1291. ADVERTISING REPRESENTATIVES: New York 17: Lee Klemmer, George Doyle, Bernard A. Smiler, John Winter, 50 East 42nd Street, Suite 401. Telephone: Murray Hill 2-8717. CHICAGO 6: Jay H. Herz, 20 North Wacker Drive, Suite 1921. Telephone: Central 6-4619. SAN FRANCISCO 4: Duncan A. Scott & Co., Mills Bldg. Telephone: Garfield 1-7950. LOS ANGELES 5: Duncan A. Scott & Co., 2978 Wilshire Blvd. Telephone: Dunkirk 8-4151.

to obtain a specific response in GOUT and GOUTY ARTHRITIS

NEOCYLATE

TRADEMARK

with COLCHICINE

Another Central First

Each NEOCYLATE* with COLCHICINE Entab* contains:	
Sodium Salicylate	0.25 Gm. (4 gr.)
Para-Amino-benzoic Acid	0.25 Gm. (4 gr.)
Ascorbic Acid	20.00 mg. (1/3 gr.)
Colchicine	0.25 mg. (1/250 gr.)
SUPPLIED: Bottles of 200, 500, and 1000 Entabs.	

*Trademark of The Central Pharmacal Co.

- The specific effect of *colchicine* in relieving pain of gout
- The specific effect of *salicylate* in augmenting urate excretion
- The specific effect of *para-aminobenzoic acid* in raising the salicylate blood level
- The specific effect of *ascorbic acid* in preventing depletion of vitamin C blood levels by salicylate

THE CENTRAL PHARMACAL COMPANY · SEYMOUR, INDIANA

Products Born of Continuous Research

LETTER FROM THE EDITOR

Dear Reader:

The life of an editor has its compensations. This is an observation that I sometimes doubt when I am crossing the country from one medical meeting to another, on a split-second schedule that hardly lets me catch my breath, to say nothing of meeting deadlines.

And then the new issue comes out. All of us who have worked on it puff up with pride. We did it again! And I unbutton my coat to gain a little expansion room. I know the moment will be short-lived and tomorrow I will learn all the things I have done wrong, but the moment is mine, and I love it.

There is another time, too, when I am sure that the editor's post is most rewarding. That is the hour that I sit down at my desk to write the editorial for the next issue. I approach the task with joy, for I feel that in my editorial I am meeting you, the reader, on a personal basis impossible to achieve in any other way. I tell you of the things that seem significant and important to me. These are things I feel strongly about. Things I think you want to know about, too. It gives us a chance, reader and editor, to work things out in an understanding way.

These editorials have moved many of you to write to me. I wish we could publish all the letters. Some pat me on the back, some punch me in the nose, but each one is vital. That is what I like. It proves to me that the *Modern Medicine* reader is an alert, questing fellow, a man with a ranging mind and an insatiable curiosity. A reader to keep any editor on his mettle.

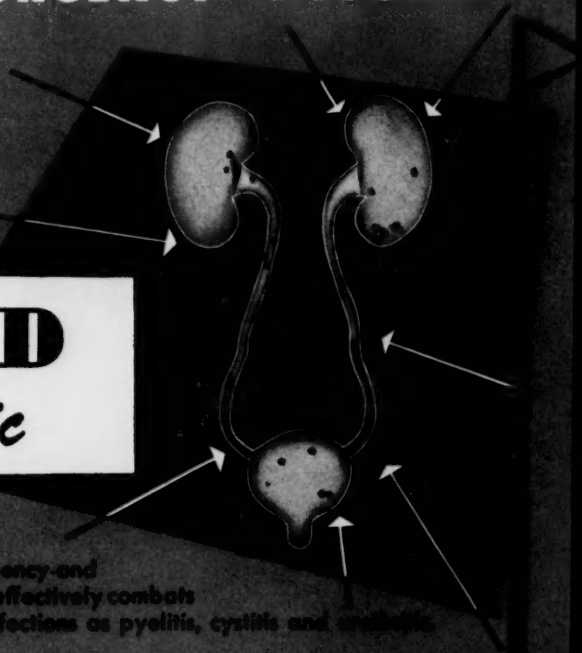
Walter C. Alvarez

EDITOR-IN-CHIEF

Strike at the SOURCE

OF PAIN • URGENCY • DYSURIA

in URINARY INFECTION



URISED

Chimedic

By attacking the basic causes of pain, burning, urgency, frequency and dysuria, URISED promptly and effectively combats such distressing urinary tract infections as pyelitis, cystitis and urethritis.

Effective urinary antisepsis

URISED rapidly reduces irritation, spasm and pus cell count—and encourages healing of the mucosal surfaces through the dependable antibacterial action of methenamine, salol, methylene blue and benzoic acid, as they are excreted in the urine.

Relaxation of smooth muscle spasm

URISED quickly overcomes painful smooth muscle spasm and restores normal tone for welcome comfort and relief by providing the parasympatholytic action of atropine, hyoscyamine and gelsemium.

Dependable therapeutic action

For prompt effective relief of the distressing symptoms of urinary infection through therapeutically proved *dual* action, prescribe URISED Chimedic.

FOR THE PROMPT RELIEF OF THE DISTRESSING SYMPTOMS OF URINARY INFECTION

SPECIFY **URISED** *Chimedic*

CHICAGO PHARMACAL COMPANY
5547 N. Ravenswood Ave., Chicago 40, Illinois

Pacific Coast Branch: 1161 W. Jefferson Blvd., Los Angeles 7, Calif.
Northwest Branch: 5513 Airport Way, Seattle 8, Wash.

Correspondence

Communications from the readers of MODERN MEDICINE *are always welcome. Address communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Full of Common Sense

TO THE EDITORS: I have read with interest the editorial on hypertension by Dr. Alvarez in *Modern Medicine*, November 15, 1951, p. 71. I sincerely hope you will continue in every number these editorials so full of knowledge and common sense.

WILLIAM F. OLEMESHA, M.D.

Los Angeles

Tapping the Chest

TO THE EDITORS: We all have had to take fluid from a patient's chest at one time or another, and I imagine that we do it the old way with a stopcock on the end of a large needle, sucking back with a 50- to 100-cc. syringe.

An improvement has been made with the use of the vacuum jars, but this is not good enough.

For a simple way of doing the job, I like to prepare the patient as usual with his hand over his head. After the skin has been sterilized, a large needle is inserted at the desired level; a stopcock is used with the syringe so that you can be sure you are just where you want to be.

After this is done, I attach a large plastic or rubber tube to the end of the stopcock and have the opposite end of the tube in a very large vacuum bottle, 3,000 to 5,000 cc., attached to a vacuum-suction apparatus found in most hospitals. I like this large vacuum bottle because of its continuous vacuum at any pressure desired. Also, it is unnecessary to change syringes when the fluid removed gets sticky or to change the small vacuum bottles that are used for withdrawing blood.

By this large continuous vacuum-bottle method, pressure is controlled at all times so that fluid is removed at a continuous slow rate. You can feel the pleura of the lung as it comes against the needle and can, therefore, withdraw the needle when necessary without doing injury to the lung.

AARON H. SHWAYDER, M.D.

Denver

Selye Summary

TO THE EDITORS: A short time ago you published a very excellent summary of some of Dr. Hans Selye's work on the general adaptation syndrome. If possible, I would sincerely appreciate a reprint of that particular article.

Your review and summary of current literature is greatly appreciated.

GEORGE F. CALVIN, M.D.

Oakland, Calif.

¶The article referred to was published in *Modern Medicine*, Jan. 15, 1950, p. 65.—Ed.

For their varying vitamin needs

MEAD'S versatile "VI-SOLS"

Water-soluble • Pleasant-tasting • Easy-to-use

To meet your requirements for different vitamin combinations for drop dosage, Doctor, are Mead's three liquid vitamin preparations — POLY-VI-SOL, TRI-VI-SOL and CE-VI-SOL.

All three of Mead's "Vi-Sols" are formulated and manufactured with the meticulous care and scientific control that have always characterized Mead's vitamin products.

	Vitamin A	Vitamin D	Ascorbic Acid	Thiamine	Riboflavin	Niacinamide
POLY-VI-SOL each 0.6 cc. supplies	5000 units	1000 units	50 mg.	1 mg.	0.8 mg.	5 mg.
TRI-VI-SOL each 0.6 cc. supplies	5000 units	1000 units	50 mg.			
CE-VI-SOL each 0.5 cc. supplies			50 mg.			

AVAILABLE IN 15 AND 50 CC. BOTTLES WITH CALIBRATED DROPPER

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE, IND., U.S.A.


Look who used to balk at vitamins!
1 PINT (473 CC.)
MULCIN
Mulcin
puts a smile in the vitamin spoon
MEAD'S

Drawings Excellent

TO THE EDITORS: The illustration depicting the indications for splenectomy (*Modern Medicine*, Dec. 1, 1951, p. 64) is excellent. I am eager to obtain 50 copies for my class in surgery at Northwestern Medical School. The students will be informed of your courtesy.

JOSEPH A. SHACTER, M.D.

Chicago

► TO THE EDITORS: Just a note to thank you for the nice way in which you handled my article on splenectomy. The drawings by Inga Platou were really excellent and I want you to thank her for me as I have heard several compliments on them. Please accept my sincere appreciation for a job well done.

D. P. HALL, M.D.

Louisville

Connotation Corrected

TO THE EDITORS: In the Medical Forum section of the December 1, 1951 issue of *Modern Medicine* (p. 106) in the discussion on "The Background of Coronary Disease," you misquoted me. In my discussion of DHO 180 and its use to rule out occasional false positive results with the exercise tolerance test, I stated that "this drug does not *always* make the definite differentiation sought for" and that the bradycardia and blood pressure drop which result in some subjects following its use *"may contraindicate this drug in patients with moderately advanced coronary artery disease."*

Your wording gives an entirely different connotation. I would appreciate your printing a correction.

SIDNEY STORCH, M.D.

New York City

Accurate Prothrombin Time

TO THE EDITORS: You published a letter from Arnold A. Swanson (*Modern Medicine,* Dec. 1, 1951, p. 30) stating that a stable thromboplastin is being prepared that will give clotting times of 10 to 14 seconds for one product and 18 to 22 seconds for another. I presume what is meant is normal prothrombin time.

The fact that a thromboplastin will give predictable results with normal plasma is not sufficient evidence that it will give accurately the prolonged prothrombin times in anticoagulant therapy. Many physicians have mistakenly assumed this was so. The results have not been good.

CHRISTIAN P. SEGARD, M.D.
Leonia, N. J.

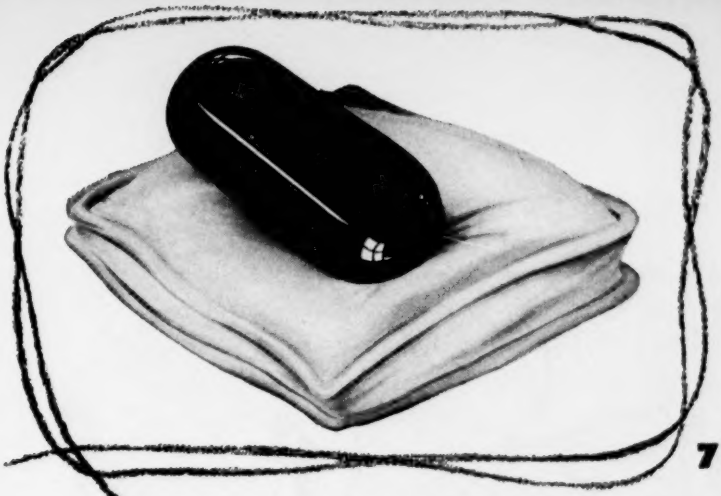
Extremely Astute

TO THE EDITORS: There is an omission of an indicated laboratory test in Diagnostix Case MM-203 (*Modern Medicine,* Nov. 15, 1951, p. 164). I refer to the examination of the urine for porphobilinogen and uroporphyrin. My diagnosis of this interesting case would be acute porphyria, not Guillain-Barré syndrome.

JOHN A. BENVENUTO, M.D.
Encinitas, Calif.

► TO THE EDITORS: For the benefit of those who were as confused as I with Diagnostix Case MM-203, permit me to suggest: "Infectious Mononucleosis and Polyneuritis (Guillain-Barré Syndrome)," *J.A.M.A.* 143:234-236, 1950,

(Continued on page 26)



7½ gr.

7½ gr. (0.5 Gm.) *BLUE* CAPSULES CHLORAL HYDRATE—*Fellows*

• DESIRABLE SLEEP lasting from five to eight hours, usually free from undesirable after-effects. Pulse and respiration are slowed in the same manner as in normal sleep. Reflexes are not abolished and the patient can be readily aroused.[2] "CHLORAL HYDRATE produces a normal type of sleep, and is rarely followed by 'hangover'."[1]

Dosage: One to two 7½ gr., or two to four 3¾ gr. capsules at bedtime.

CAPSULES CHLORAL HYDRATE—*Fellows*

ODORLESS • NON-BARBITURATE • TASTELESS

3¾ gr. (0.25 Gm.) *BLUE and WHITE* CAPSULES CHLORAL HYDRATE—*Fellows*

• DAYTIME SEDATION for the patient who needs daytime sedation and relaxation with complete comfort.

Dosage: One 3¾ gr. capsule three times a day, after meals.

3¾ gr.

EXCRETION — Rapid and complete, therefore no depressant after-effects.[3, 4]

Available: Capsules CHLORAL HYDRATE — Fellows
3¾ gr. (0.25 Gm.) Blue and white capsules. . . bottles of 24's and 100's
7½ gr. (0.5 Gm.) Blue capsules. . . . . bottles of 50's

Professional samples and literature on request

Fellows MEDICAL MFG. CO., INC. Pharmaceuticals

pharmaceuticals since 1868
24 Christopher St., New York 14, N. Y.

BIBLIOGRAPHY
1. Hyman, H. T.: An Integrated Practice of Medicine (1950)
2. Robbins, W. R., et al: A Course in Practical Therapeutics (1948)
3. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics (1941), 22nd printing, 1951.
4. Sollmann, T.: A Manual of Pharmacology, 7th ed. (1948), and Useful Drugs, 14th ed. (1947)

An Unusually Unresponsive Arthritis—Severely Painful, Recurrent . . . . .

Consider gouty diathesis as the cause. "Chronic gouty arthritis may be confused with osteoarthritis, post-gonorrheal rheumatoid arthritis and adult rheumatoid arthritis."[1]

Fortunately, there is a sure diagnostic test for gouty arthritis—gout should be suspected if "symptoms are *relieved* within 24 to 72 hours by adequate doses of *colchicine*."[2]

Specifically designed to meet the demands of gouty arthritis therapy—

CINBISAL *'McNeil'*
TRADE MARK

—provides colchicine (0.25 mg.) for its specific effect; sodium salicylate (0.3 Gm.) to combat pain in hyperuricemia; ascorbic acid (15 mg.) to replace vitamin C lost during salicylate therapy.

CINBISAL *is supplied in bottles of 100 and 1000 tablets. (Engestic® coated green.) Samples on request.*

IN ACUTE CASES—medical management includes two tablets Cinbisal (equivalent to colchicine 0.5 mg. and sodium salicylate 0.6 Gm.) every hour until pain is relieved, unless gastrointestinal symptoms appear. (Eight to ten doses are usually sufficient.)

TO PREVENT RECURRING ATTACKS—one or two tablets every four hours.

McNEIL LABORATORIES, INC. Philadelphia 32, Pa.

1. Comroe, B. I.: Arthritis and Allied Conditions, Philadelphia, Lea & Febiger, 1949, p. 734.
2. Ibid, p. 735.

and also: "Guillain-Barré Syndrome or Infective Polyneuritis," *Year Book of Medicine*, 1950.

PAUL LOWELL, M.D.

Kansas City, Mo.

¶The suggestion of a urine examination for porphobilinogen and uroporphyrin in case MM-203 is extremely astute because the acute porphyrias sometimes resemble the picture presented in this case. However, the neurologic manifestations in acute porphyria vary widely.

Classically the disease begins with an ascending paralysis of the Landry type, but paralysis may be irregular and patchy. The deep and superficial symptoms disappear with the occurrence of paralysis and fluctuate daily. Unlike congenital porphyria, photosensitivity is rare with the acute disease. Although the condition has been called acute porphyria, it is, according to some, a chronic disease characterized by exacerbations and remissions. Onset may be characterized by pain in the extremities. Urine is frequently the color of port wine or burgundy, but at times is clear and must be exposed to sunlight to change color. Cranial nerve involvement is common. Spinal fluid protein in porphyria varies from normal or low to very high levels.

In the case presented, in which a great deal of detailed and confirmatory evidence was on hand, the diagnosis of Guillain-Barré disease was fairly established at the university clinic, and the case was written from a teaching standpoint because of the need for quantitative studies of spinal fluid and to alert the clinician on this important syndrome.—Ed.

T-Tube Drainage in Pancreatitis

TO THE EDITORS: I enjoyed very much the discussion of sphincterotomy in pancreatitis in the November 15, 1951 issue of *Modern Medicine* (p. 155). Common duct drainage has frequently been discussed as a method of treating pancreatitis and this problem has often occurred to me as it has to many other general surgeons.

I had the opportunity to work

Duo...

for complementary effects wherever combined estrogen-androgen therapy is indicated...

e. g. *In fractures and osteoporosis in either sex to promote bone development, tissue growth, and repair.*

e. g. *In the female climacteric in certain selected cases.*

e. g. *In dysmenorrhea in an attempt to suppress ovulation on the basis that anovulatory bleeding is usually painless.*

e. g. *In the male climacteric to reduce follicle-stimulating hormone levels.*

"PREMARIN" *with* METHYLTESTOSTERONE

is designed to permit utilization of both the complementary and the neutralizing effects of estrogen and androgen when administered concomitantly. Thus certain properties of either sex hormone may be employed in the opposite sex with a minimum of side effects.

Availability: Each tablet provides estrogens in their naturally occurring, water-soluble, conjugated form expressed as sodium estrone sulfate, together with methyltestosterone.

No. **879**—Conjugated estrogens equine ("Premarin") ..... 1.25 mg.
Methyltestosterone ..... 10.0 mg.
Bottles of 100 tablets (yellow)

No. **878**—Conjugated estrogens equine ("Premarin") ..... 0.625 mg.
Methyltestosterone ..... 5.0 mg.
Bottles of 100 tablets (red)

5108

Ayerst, McKenna & Harrison Limited • 22 East 40th Street, New York 16, New York

from among
all antibiotics,
Neurologists and Neurosurgeons
often choose

AUREOMYCIN

because

It readily passes into the cerebrospinal fluid, the presence of meningitis making little difference in its concentration.

Measurable serum levels are maintained for as long as 12 hours after oral administration, oral doses of 5 to 10 mg. per kilo at 6-hour intervals being adequate for this purpose.

Aureomycin has been shown to be highly effective against those bacterial invaders commonly encountered in central nervous system infections.

Aureomycin has been reported to be effective against susceptible organisms in: Encephalitis · Meningitis · Brain Abscess · Cranial Trauma Infection

Throughout the world, as in the United States, aureomycin is recognized as a broad spectrum antibiotic of established effectiveness.

Capsules: 50 mg.—Bottles of 25 and 100. 250 mg.—Bottles of 16 and 100. *Ophthalmic:* Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY
30 Rockefeller Plaza, New York 20, N.Y.

with Dr. J. J. McGowan, who originated the study of intrabiliary dynamics by employing a simple manometer. He has used this method to study the physiology of the common duct and the sphincter of Oddi. I have used his method to study cholangitis and pancreatitis and have published some data on its usage.

The most common problem which arises after T-tube drainage in pancreatitis is determining when the tube should be removed—that is, when the edema of the pancreas or other organic change has been restored to normal so that the flow of bile has become uninterrupted and the sphincter of Oddi is working normally.

With the measurements of the intrabiliary pressures and the correlation of these pressures both in the resting phase and during pain perfusion levels, a very accurate timing in removal of the T tube is possible. I have many cases in my files in which an edema of the head of the pancreas occluded the normal flow of bile and produced high intrabiliary pressures. These patients were given long periods of T-tube drainage, ranging from six to twelve months. After complete study of the biliary dynamics, they were relieved of the pancreatitis and have never had a recurrence.

We have also found that destruction of the sphincter of Oddi is not to be recommended nor are long limb T tubes that interfere with the normal function of the sphincter.

Clinically I have proved that the interruption of the sphincter's normal function will cause a relaxation and encourage ascending infection of enterocolic organisms, if these happen to be present in the duodenum.

I am anxious to hear other views about the pressure studies and their clinical employment and evaluation by other surgeons.

S. ALBERT SARKISIAN, M.D.

Brockton, Mass.

Not Available in I.V. Form

TO THE EDITORS: The interesting abstract of Dr. Frederick J. Stare's report on the use of Lipomul in the treatment of conditions of undernutrition has recently been called to our attention (*Modern Medicine*, Sept. 1, 1951, p. 104).

Although Dr. Stare's papers report the results obtained from both oral and intravenous fat emulsion, the product which is on the market at present is intended for oral use only. While much research work has been carried on in the attempt to bring about a uniformly satisfactory intravenous fat emulsion, the results to date have not been sufficiently uniform to warrant marketing the product in this form. We are wondering if confusion might result from the announcement in your journal of the use of this product intravenously.

L. A. DICK, M.D.

Kalamazoo, Mich.

Carmethose® *liquid*

controls antibiotic nausea

Permits intestinal absorption of the antibiotic

Does not interfere with therapeutic blood levels

Mild mint flavor

Exceptionally palatable

15 minutes before each oral dose of antibiotic

Clinical studies at Michael Reese Hospital, Chicago, and at the Mayo Clinic proved CARMETHOSE Liquid to be notably successful in suppressing "g-i" upsets from oral antibiotics.[1,2]

In comparative tests, CARMETHOSE had no significant effect on antibiotic blood levels, but aluminum hydroxide gel prevented adequate absorption of the antibiotic.

CARMETHOSE has no side-effects[3] . . . safe for routine use with oral antibiotics

CARMETHOSE Liquid is a 5% solution of sodium carboxymethylcellulose—a true buffer. Bottles of 12 fl. oz.

1. Greenspan, R., MacLean, H., Milzer, A., and Necheles, H.: Am. J. Dig. Dis. 18:35, 1951. 2. Parsons, W. B., Jr., and Wellman, W. E.: Proc. Mayo Clinic 26:260, 1951. 3. Necheles, H., Kroll, H., Bralow, S. P., and Spellberg, M. A.: Am. J. Dig. Dis. 18:1, 1951.

Ciba

2/1801-M

HEMORRHAGE IS UNPREDICTABLE . . .

Authorities recognize that a simple trickle may continue indefinitely, and prove as baffling as a furious fountain of blood which suddenly stops.

KOAGAMIN'S action is normally predictable because of its direct action on the blood. KOAGAMIN acts fast—in minutes—unlike vitamin K, useful only in cases of prolonged prothrombin time. In such cases, vitamin K may be used with KOAGAMIN to effect faster control.

KOAGAMIN®

(An aqueous solution of oxalic and malonic acids for parenteral use)
In 10 cc. diaphragm stoppered vials
Comprehensive dosage chart and literature on request

THERAPEUTICALLY effective in many hemorrhagic conditions

PREOPERATIVELY minimizes oozing, assures a clearer field for surgery

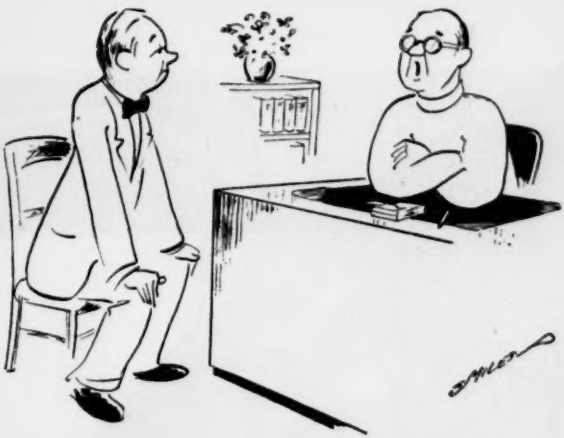
POSTOPERATIVELY aids control of secondary bleeding . . . quickly, safely

Chatham

Available Through Your Physician's Supply House or Pharmacist

CHATHAM PHARMACEUTICALS, INC. NEWARK 2, NEW JERSEY, U.S.A.

1. De Lee-Greenhill: Principles and Practice of Obstetrics, edit. 7, p. 1, W. B. Saunders, 1947.



"Gad, man, you have symptoms in places where other people haven't even got places!"

Life's Weary Moments

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 1 winner is

Sidney Lechner, M.D.
Bronx

Mail your caption to The Cartoon Editor
Caption Contest
No. 1
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.


HOME
TREATMENT
OFFICE
TREATMENT

IS LONG-ACTING

ACTHAR *Gel*—the new LONG-ACTING repository preparation—simplifies ACTH therapy comparable to the management of diabetes with long-acting insulin. Home or office treatments become readily applicable with substantial economy to the patient. Greatly prolonged therapeutic action and convenience of administration are distinct advantages of ACTHAR *Gel*.

Recent clinical studies have firmly established the recommended dosage of ACTHAR *Gel*. Established dosage for optimum therapeutic effects is important in the everyday use of ACTH in your practice.

Indications: Rheumatoid arthritis, rheumatic fever, acute lupus erythematosus, drug sensitivities, severe bronchial asthma, contact dermatitis, most acute inflammatory diseases of the eye, acute pemphigus, exfoliative dermatitis, ulcerative colitis, acute gouty arthritis, secondary adrenal cortical hypofunction. **Supplied:** 5 cc. multiple dose vial containing 20 I.U. per cc., and 5 cc. multiple dose vial containing 40 I.U. per cc.

*THE ARMOUR LABORATORIES BRAND OF ADRENOCORTICOTROPIC HORMONE (A.C.T.H.)

THE ARMOUR LABORATORIES

CHICAGO 11, ILLINOIS

world-wide dependability

PHYSIOLOGIC THERAPEUTICS THROUGH BIORESEARCH

Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: A woman about two and one-half months pregnant is troubled with ptyalism. I have given her phenobarbital with belladonna, atropine, Dramamine, concentrated glucose intravenously, Lyo-B-C, as well as 2 doses of adrenal cortical extract with pyridoxine—all without success. She had some associated nausea and vomiting which has been controlled, but the excessive salivation continues. Do you have any suggestions to curb or terminate this bothersome condition?

M.D., California

ANSWER: *By Consultant in Obstetrics.* Banthine, which causes dryness in the mouth and also seems to be an intestinal sedative, could be used in 50-mg. doses every four hours, increased to 100-mg. doses if no result is obtained with the first amount. Also, homatropine methylbromide in the form of Novatrin could be given up to about 10 mg. four times a day, or Squibb's bistrium bromide, 25 to 100 mg. intramuscularly daily or twice a day. With this last medication, the patient should be hospitalized, since a rather pronounced reduction in blood pressure is sometimes produced. The latter condition would have to be combated with epinephrine.

"Come to dinner tomorrow night, Doc. And bring your bag."

QUESTION: Is ammonium chloride, Mercuhydrin, or Thiomerin contraindicated for an elderly patient with hypertensive heart disease?

M.D., Texas

ANSWER: *By Consultant in Internal Medicine.* Ammonium chloride may be used to promote diuresis in patients who have congestive failure.

However, mercurial preparations such as Thiomerin or Mercuhydrin usually are adequate. The intake of salt should be restricted also. Chronic passive congestive failure with severe albuminuria does not contraindicate the use of mercurials, but such medication should not ordinarily be employed for patients with chronic nephritis or acute nephritis with red blood cells in the urine.

for the life that begins at forty

potent protection against
the combined threats of
atherosclerosis and capillary fragility

SCHENLEY LABORATORIES, INC.
LAWRENCEBURG • INDIANA

The average daily dose (6 tablets) provides:			
Choline	1 Gm.	Pyridoxine HCl	4 mg.
Inositol	1 Gm.	Rutin	150 mg.
dl-Methionine	500 mg.	Ascorbic Acid	75 mg.
SUPPLIED: Bottles containing 100 tablets			

TĪTRALAC

ANTACID

schenley

TABLETS
POWDER
LIQUID

Doctor to Doctor

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 1 winner is

F. W. Knoch, M.D.
Oak Park, Ill.

Mail your caption to
The Cartoon Editor
Caption Contest
No. 2
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.

"The last thing I remember was saying to Jones, 'I felt a thrill when palpating your wife's chest.'"

Wider operative range with ARC-VUE OTOSCOPE

Ingeniously devised lens system and reflecting prism permits rotation of speculum mount to give 36% larger operative field than similar instruments. Concentrated lamp filament and total reflecting prism projects brilliant white light through speculum to field. Head includes tongue depressor holder. Attractively cased with 4 specula, including nasal.

BAUSCH & LOMB

OPTICAL COMPANY ROCHESTER, N.Y.

PABALATE

Widely prescribed as one of the safest and most effective preparations specifically formulated for antirheumatic therapy

Provides prompt, prolonged pain relief by synergistic action of salicylate and para-aminobenzoic acid

Now available also as

PABALATE®—SODIUM FREE

For use when sodium intake is restricted in management of the rheumatic or arthritic patient—

. . . as in congestive heart failure, essential hypertension, glomerulonephritis, pregnancy, and other complications—

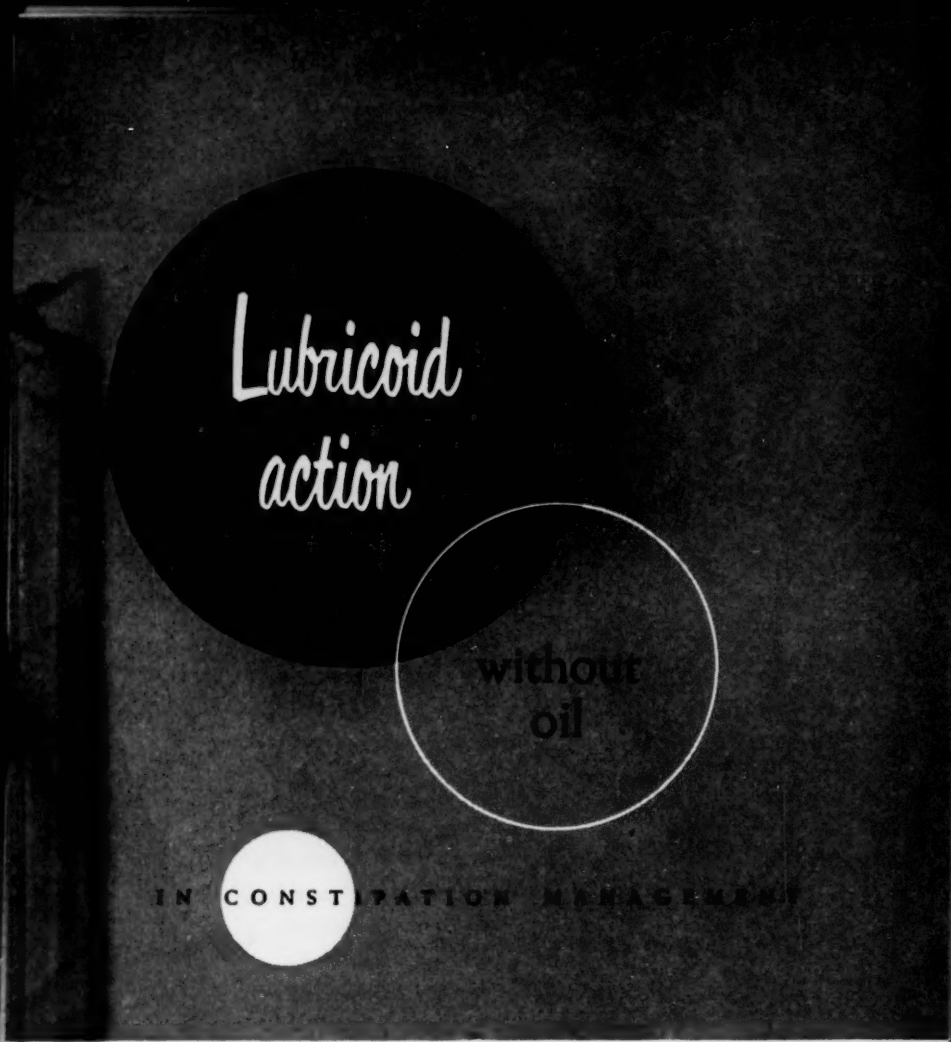
. . . or in conjunction with ACTH or cortisone therapy. Smaller doses of cortisone are required when salicylate[1] or para-aminobenzoic acid[2] is used in conjunction with the hormonal regime. Pabalate-Sodium Free thus offers the advantages of reduced expense for the patient and fewer side reactions.

1. Bull. Rheum. Dis. 1:9, 1951.
2. Am. J. M. Sci. 222:243, 1951.

Each enteric-coated tablet of Pabalate-Sodium Free (Persian rose color) contains ammonium salicylate 0.3 Gm. (5 gr.) and para-aminobenzoic acid (as the potassium salt) 0.3 Gm. (5 gr.)
bottles of 100 and 500

Richmond 20, Virginia

Ethical Pharmaceuticals of Merit since 1878



TURICUM®

HYDROPHILIC LUBRICOID

Whittier

LABORATORIES

DIVISION NUTRITION RESEARCH LABORATORIES, INC.

CHICAGO 11, ILLINOIS

—combines methylcellulose as a gel and magnesium hydroxide in less than laxative dosage, to assure continued hydration of the gel throughout the intestinal tract. Turicum encourages normal evacuation—no bloating, no impaction—no interference with utilization of oil-soluble vitamins—no danger of lipid pneumonia—no leakage.

Pint Bottles

NEW *tasty*
high potency
convenient

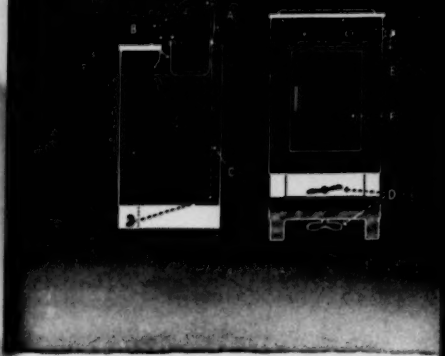
CRYSTALLINE
Terramycin

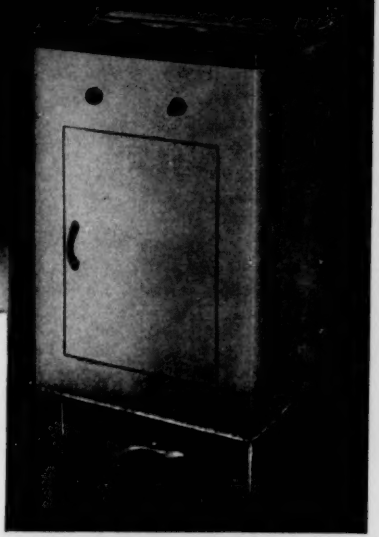
250 mg. of pure Crystalline Terramycin per teaspoonful (5 cc.). Supplied in a combination package consisting of a vial containing 1.5 Gm. Crystalline Terramycin . . . and a bottle containing 1 fl. oz. of flavored diluent.

NTIBIOTIC DIVISION • CHAS. PFIZER & CO., INC.

Pfizer

Ultra-Modern in every detail





"American" CABINET MODEL
SMALL INSTRUMENT STERILIZERS

combine *exclusive* highlights in design and construction that insure greater operating safety, convenience and long periods of satisfactory service.

(a) **Cover** – fabricated of stainless steel and elevating to full 90° angle to permit easy removal of tray without interference.

(b) **Cover** – elevates to 30° angle before immersed tray starts to raise, thus enabling operator to observe water level at all times to insure immersion of instruments.

(c) **Cover Elevating Mechanism** – Concealed entirely within cabinet, thus allowing cabinet to be placed flush against the wall.

(d) **Recessed Foot Pedal** – Eliminates tripping annoyances and permits greater freedom of access for operator.

(e) **Drain Faucet** – a special screw-type valve which will not stick or score and may be taken apart instantly for cleaning without tools.

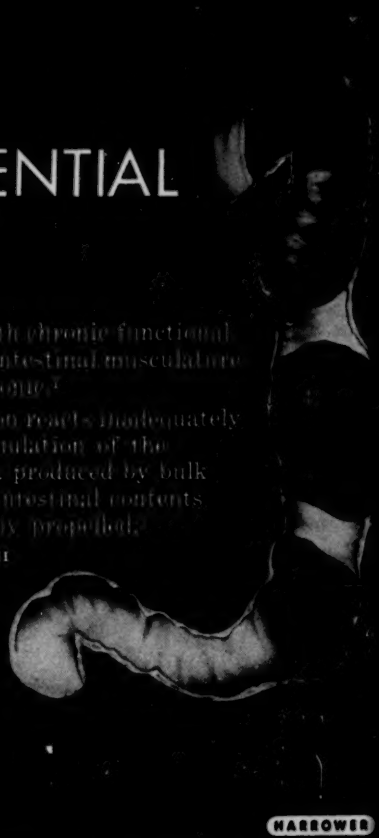
(f) **Doors** – Solid double-panel or glass, hung on fully concealed steel hinges, fitted with Bakelite handle, spring catches and rubber bumpers.

BURN-OUT-PROOF!
An automatic safety measure protecting both Steriliser and instruments against possible damage due to depletion of water supply in chamber.

ASK YOUR DEALER or write us for further information

AMERICAN STERILIZER COMPANY
Erie, Pennsylvania

Activation IS ESSENTIAL



In the patient with chronic functional constipation the intestinal musculature is thinned and atonic.[1]

This atrophic colon reacts inadequately to the reflex stimulation of the intestinal mucosa produced by bulk alone. Since the intestinal contents are not adequately propelled,

gentle activation of peri-taltic movement- is essential.

HARROWER

In addition to methylcellulose (moist bulk), **PRULOSE COMPLEX** contains a prune concentrate fortified with an isatin derivative to provide additional gentle stimulation of peristalsis. **PRULOSE COMPLEX** insures this activation without irritation.

Suggested Dosage: One or more tablets with a full glass of water, twice daily, until normal evacuation is established.

References:

1. [illegible] H. McCrea Eyster, A.M., M.D., *The Physiological Basis of Medical Practice*, 6th ed., p. 501.
2. White, F. W., and Emery, E. S., *Constipation: Nature, Causes and Treatment*, Medical Clinics of North America, Vol. V, No. 1.

SERVING THE PROFESSION IN A PROFESSIONAL MANNER

the Harrower Laboratory inc.

IN NASOPHARYNGITIS

HERE IS

PROMPT RELIEF

BACITRACIN-NASAL

Bacitracin-Nasal provides 250 units of bacitracin per cc. and 0.25% of *dl*-desoxyephedrine hydrochloride in a buffered, isotonic, rose-scented solution. In addition to the effective local antibiotic action of bacitracin, it also provides prompt relief by the vasoconstriction produced by *dl*-desoxyephedrine hydrochloride. Bacitracin is virtually nonallergenic and, further, no inhibitor similar in action to penicillinase has been demonstrated.* Bacitracin-Nasal may be administered by dropper or nebulizing spray to relieve congestion quickly and to shorten the duration of infection in nasopharyngitis.

*Prigal, S. J., and Furman, M. L.: *The Use of Bacitracin, a New Antibiotic, in Aerosol Form: Preliminary Observations*, Ann. Allergy 7:662 (Sept.-Oct.) 1949.

BACITRACIN TROCHES

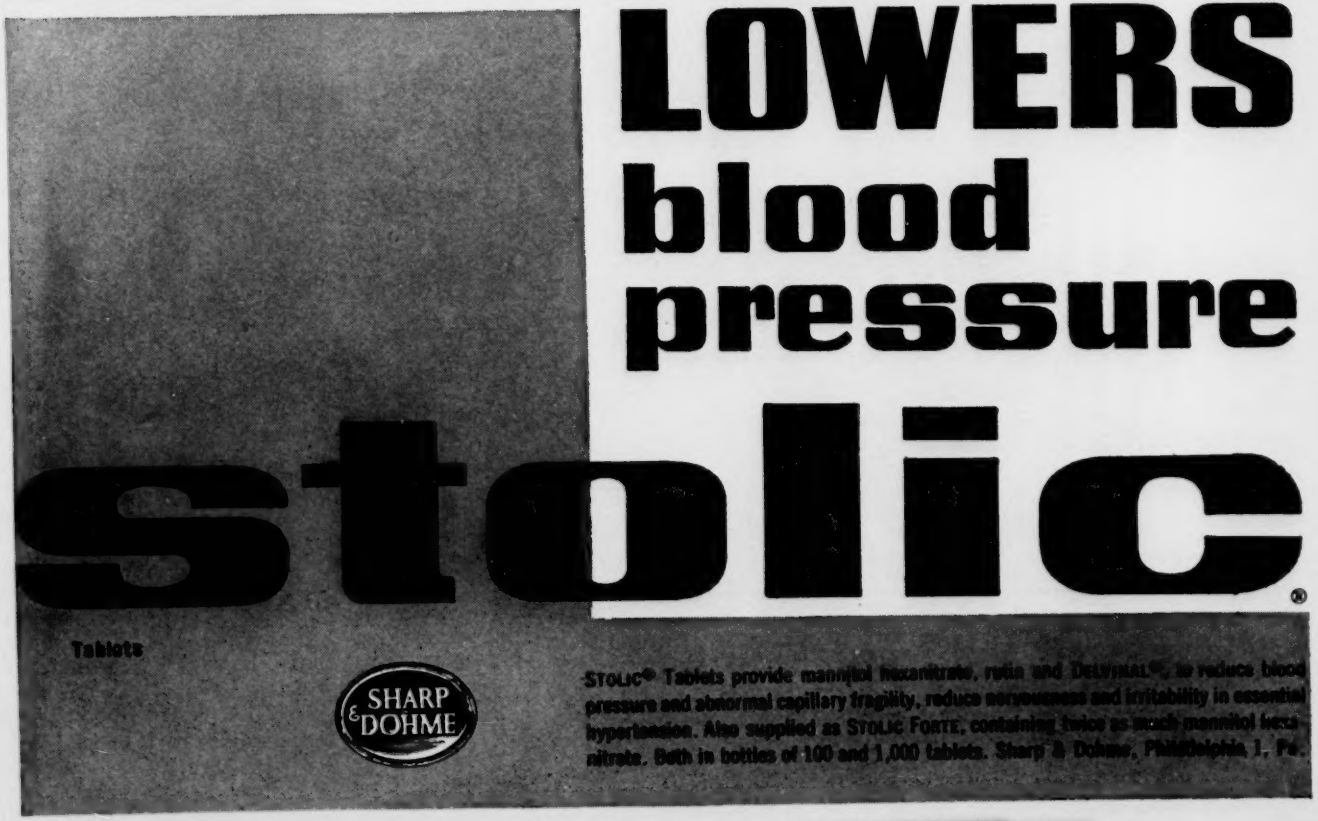
WITH BENZOCAINE

Each Bacitracin Troche combines the antibiotic action of 1,000 units of bacitracin with the local anesthetic effect of 5 mg. of benzocaine. Bacitracin Troches are candy-flavored. Their pleasant taste and soothing effect readily adapts them for collateral treatment in nasopharyngitis.

SUPPLY: Bacitracin-Nasal is supplied as a dry powder, to be diluted and dispensed by the pharmacist in a ½ ounce bottle provided for this purpose.
Bacitracin Troches are supplied in bottles of 25. Refrigeration is not required.

C.S.C. Pharmaceuticals

A DIVISION OF COMMERCIAL SOLVENTS CORPORATION
17 EAST 42ND STREET, NEW YORK 17, N. Y.


LOWERS
blood
pressure
stolic
Tablets
SHARP & DOHME
STOLIC® Tablets provide mannitol hexanitrate, rutin and DELVINAL®, to reduce blood pressure and abnormal capillary fragility, reduce nervousness and irritability in essential hypertension. Also supplied as STOLIC FORTE, containing twice as much mannitol hexanitrate. Both in bottles of 100 and 1,000 tablets. Sharp & Dohme, Philadelphia 1, Pa.

A new case history with pictures

The unique value of Dexamyl* in providing symptomatic relief from mental and emotional distress is clearly demonstrated in this case history—reported by a Philadelphia general practitioner.

Patient: S.M. (shown in photos on opposite page), "a lovely old lady", age 80, afflicted with arteriosclerosis, cardio-renal insufficiency, degenerative osteoarthritis and diabetes mellitus. She is "plagued with nervousness, profound weakness, vertigo, and pain."

"The only thing she asked of life was that she die before her children. Life did not grant her this balm. The untimely death of a daughter through suicide wrapped every one of her reflections in a package of misery."

Medical treatment: "Despite ... her cardiovascular pathology, I resorted to Dexamyl as the best of the geriatric armamentarium. At first she received two tablets on arising; one at noon; and one at 5 P.M. After two months I was able to reduce the dosage."

Results: "Dexamyl did not fail. It relieved her nervous uncertainty, her depressive weariness, her melancholia and her tearfulness. Dexamyl helped her to smile again."

Dexamyl

its "normalizing" effect

ameliorates mood . . . relieves inner tension

Each tablet contains Dexedrine* Sulfate (dextro-amphetamine sulfate, S.K.F.), 5 mg.; Amobarbital, Lilly, ½ gr. (32 mg.) *T.M. Reg. U.S. Pat. Off.

Smith, Kline & French Laboratories, Philadelphia

These unposed photographs of patient S.M. were snapped during an actual interview with her physician. She is describing her symptoms of mental and emotional distress. See the opposite page for the case history of this patient.

Why should your nurse "roll your own" cherry sponges

. . . when you can now have machine-made RONDIC Sponges at lower cost?

In office or hospital, RONDIC machine-made cherry sponges can end the nurse's tedious job of making round sponges by hand—and the RONDIC finished cost is *less* than the cost of labor and materials to make your own.

Modern RONDIC Sponges are more uniform, handle easily in forceps, do not stick together. They are cotton-filled, gauze-wrapped, safely and securely tucked with no protruding ends.

And you can now afford to use these superior ball sponges *in four convenient sizes* for the needs listed—in preference to any other dressing.

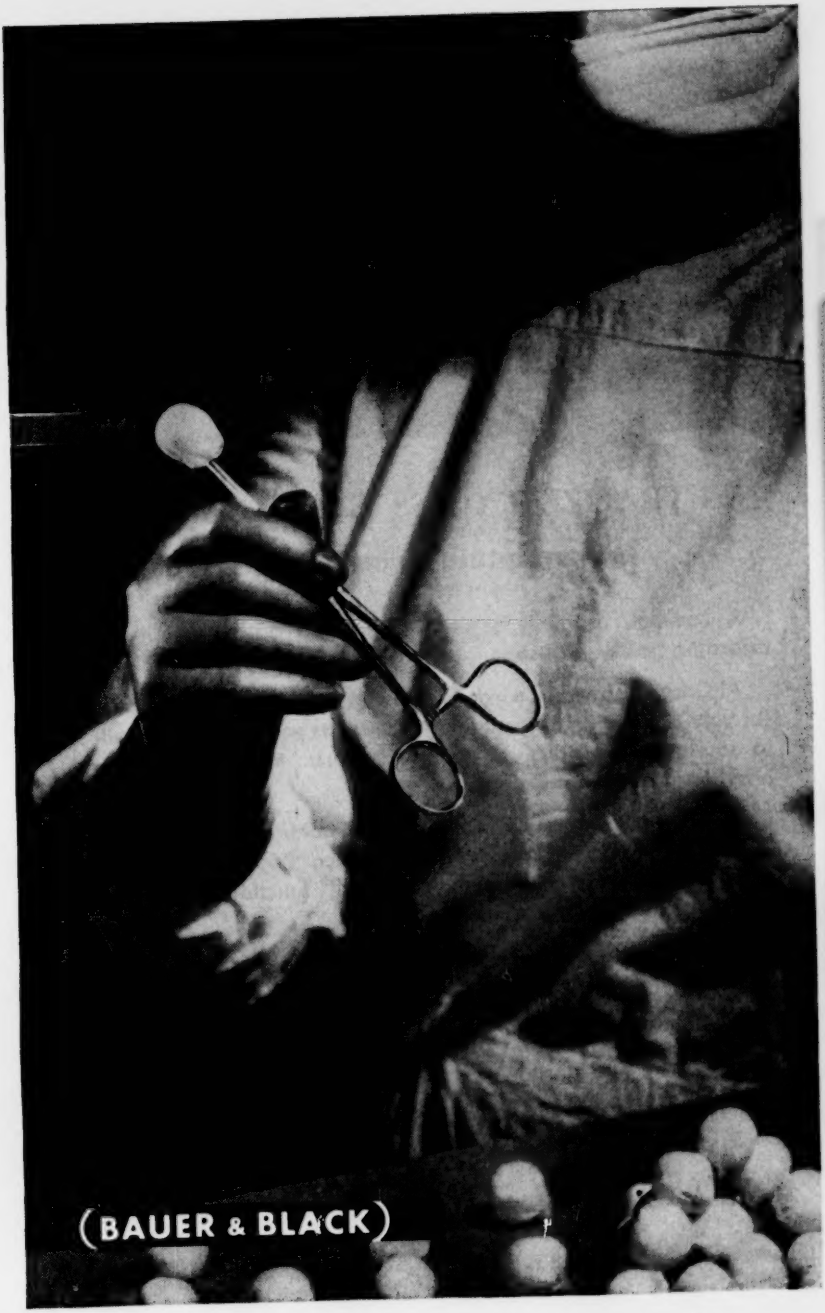
Prepping • Sponge-stick sponging
Tonsil sponges • Tonsil packs
Blunt dissection • Vaginal sponges
Rectal sponges • Alcohol sponges
Medication sponges • Cleansing skin
Wiping hypodermic needles
Shielding needles in sterilizing syringes
Cleansing lacerations . . . and many other uses

RONDIC Sponges are stocked by leading surgical supply dealers.

Curity
REG U.S. PAT. OFF.

RONDIC® SPONGES

BAUER & BLACK
Division of The Kendall Company


(BAUER & BLACK)

NEUTRALIZE EXCESS STOMACH ACIDITY

but maintain protein digestion

A common problem is that of relieving gastric acidity without retarding gastric digestion.

Al-Caroid provides a ready answer. Here in a single, balanced formula are 3 effective antacid ingredients with added bismuth salts to soothe and protect the gastric mucosa. Al-Caroid acts quickly, provides a sustained action.

In addition, Al-Caroid contains the potent proteolytic enzyme, "Caroid," from the tropical tree, Carica Papaya. Unlike animal enzymes or ferments, "Caroid" functions in acid as well as alkaline media.

Al-Caroid speeds the digestion and assimilation of needed proteins, dissolves excessive mucus and relaxes the spasmodic pylorus.

Tablets, in bottles of 20, 50, 100, 500 and 1000.
Powder, in packages of 2 oz., 4 oz., and 1 lb.

write for professional samples

al-caroid®
POWDER AND TABLETS

ANTACID
DIGESTANT

AMERICAN FERMENT COMPANY, INC.
1450 Broadway • New York 18, N. Y.

Forensic Medicine

ARTHUR L. H. STREET, LL.B.

Prepared especially for Modern Medicine

PROBLEM: The New York statutes provide for retirement of public school teachers on application of a department head after certification of physical disability by a medical board. [1] Is the teacher entitled to have her physician present at an examination by the board? [2] Is a certification by the board conclusive upon the courts as to disability? [3] Must the nature of the disability be specified in detail in the certificate? [4] Is the teacher entitled to examine medical reports submitted by physicians of the board of education?

COURT'S ANSWERS: [1] No. [2] Yes. [3] No. [4] No.

The New York Supreme Court, Special Term, Kings County, said that even if the teacher had a right to have her physician present, the right was waived in the case at issue by her not asking that he be allowed to attend (107 N.Y. Supp. 2d 475).

PROBLEM: In a proceeding to establish that the husband of a second marriage was father of his wife's child, as claimed by both him and his wife, the first husband insisted that he was the father. Could a decision in favor of the petitioners rest upon blood grouping tests showing that the first husband could not have been the father, although there were no tests to show that the second husband could be?

COURT'S ANSWER: Yes.

Tests showed that the mother had MN type of blood, the child MM, and the defendant NN. Judge Eder of the New York Supreme Court, Special Term, acted upon medical testimony that those factors definitely excluded the defendant as father. The Judge observed: "Medical testimony is not conclusive, but it may, like all other testimony, be . . . given such credence and weight by the Court to the extent that it is deemed to be trustworthy and convincing. . . . None of the medical testimony of the plaintiffs has been met by any counter medical proof and defendant has not manifested any satisfactory reason why the medical evidence of the plaintiffs should not be accepted" (98 N.Y. Supp. 2d 167).

PROBLEM: A railway employee was accidentally injured while at work. His injury was aggravated by negligent treatment by a physician whom he selected. The employee collected workmen's compensation which covered both the original and the aggravated injuries. Could he then sue the doctor to collect damages on account of the negligent treatment?

COURT'S ANSWER: No.

This decision of the West Virginia Supreme Court of Appeals rests upon the grounds that an employer's liability for injury to an employee—whether under common-law rules or a workmen's compensation statute—includes liability for increase of the

Differing from the ordinary ground-glass hypodermic syringe, the barrel of the new B-D DYNAFIT® SYRINGE is molded to fit its plunger, *not ground.* This means:

1. **LESS FRICTION** between plunger and barrel.

2. **LESS EROSION** because the intact "skin" of the glass barrel protects it during cleansing and sterilizing.

3. **LESS BREAKAGE** because the glass has not been weakened by grinding.

Less friction, less erosion, and less breakage mean longer life . . . and lower cost-in-use.

You'll notice the difference the first time you use a B-D DYNAFIT SYRINGE. The finely-ground plunger slides smoothly along the unground inner surface of the barrel. And it will continue to do so because the DYNAFIT virtually never wears out.

See the new B-D DYNAFIT SYRINGE at your dealer's. Available in 2 cc., 5 cc., and 10 cc. sizes with Luer-Lok® tip.

B-D, DYNAFIT, and LUER-LOK Trademarks Reg. U.S. Pat. Off.

BECTON, DICKINSON AND COMPANY, RUTHERFORD, N. J.

injury by medical or surgical treatment, if the employee has used reasonable effort to secure a competent physician, and that, having collected from the employer for both injuries, he cannot fairly collect from the doctor (55 S.E. 2d 88).

Although the decision of the West Virginia court accords with rulings of courts in some states, it is contrary to decisions in other states, particularly where differently worded statutes are in effect.

In New York, Minnesota, and Utah, the courts have declared that a workmen's compensation award includes compensation for aggravation of the injury by negligent treatment (196 N.E. 308, 287 N.W. 857, and 79 Pac. 2d 77). The supreme courts of Kansas and Montana have ruled to the contrary (11 Pac. 2d 1016 100 Pac. 2d 75). The Oklahoma Supreme Court says that acceptance of a compensation award covering an original injury does not preclude a malpractice suit against the attending doctor (237 Pac. 86).

A New York decision was to the effect that the employee could first sue the doctor for the aggravated injury and then claim a workmen's compensation award for the original injury (196 N.E. 308). By statute in New Mexico the employee has a choice between claiming compensation from the employer for the aggravated injury, as well as the original injury, or suing the doctor for the aggravated injury. A Wisconsin stat-

ugar-coated for dependable diuresis

Sugar coating is one reason for the superiority of Tablets MERCUHYDRIN with Ascorbic Acid.

Maximum absorption of mercury occurs in the stomach and duodenum—too high for enteric-coated tablets. But poorly tolerated oral mercurials *must be* enteric-coated. Only well-tolerated Tablets MERCUHYDRIN with Ascorbic Acid can be sugar-coated . . . give consistently greater diuresis with less mercury.

For dependable diuresis and minimal side effects prescribe

tablets

MERCUHYDRIN®

with ascorbic acid

The simplest method of outpatient maintenance

dosage: One or two tablets daily, morning or evening, preferably after meals.

available: Bottles of 100 simple sugar-coated tablets each containing meralluride 60 mg. (equivalent to 19.5 mg. of mercury) and ascorbic acid 100 mg.

To secure the greatest efficacy and all the advantages of Tablets MERCUHYDRIN with Ascorbic Acid, prescribe a three-week initial supply . . . 25 to 50 tablets.

M-15

Lakeside Laboratories, INC., MILWAUKEE 1, WISCONSIN

ute specially authorizes the employee to collect damages from the doctor in such cases.

PROBLEM: A surgeon sued to collect a $2,000 balance on a $3,000 bill for frontal lobotomy. Evidence showed that the patient's son had made all the arrangements, that her husband had paid $1,000, and that her son had told the doctor that he was acting for both his parents. Was a jury's award of $1,738.50, without interest, in favor of the doctor and against the patient and her husband sustainable?

COURT'S ANSWER: Yes.

The North Carolina Supreme Court intimated that the testimony that the son had acted as agent for his parents would have been properly excluded had defendants objected to it. In upholding the award, the court was especially impressed by the jury's impartiality, since the surgeon resided in a distant city while the defendants were local residents (66 S. E. 2d 895).

¶Here is a practical illustration of the wisdom of having written agreements as to who is to pay a medical or surgical bill and how much is to be paid, especially when the fee is to be large.—A.L.H.S.

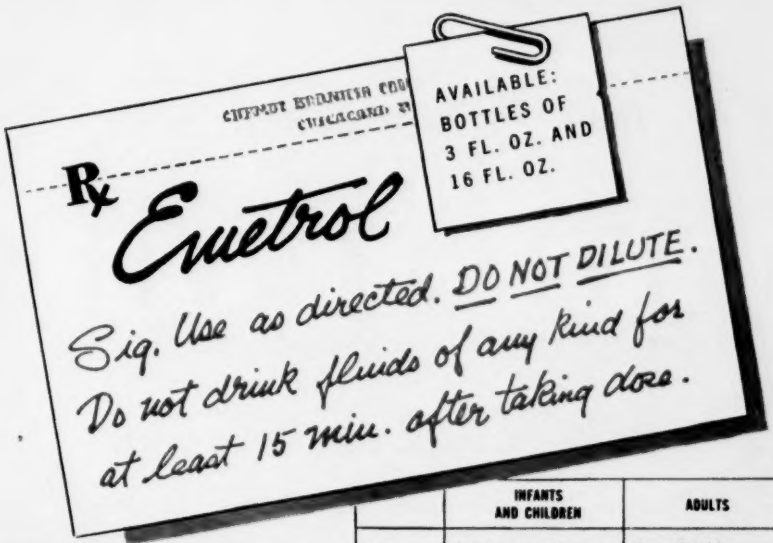
"My husband's too busy to see you, but here is what I think is the matter with him."

FOR RAPID...SAFE...PHYSIOLOGIC CONTROL OF FUNCTIONAL VOMITING

EMETROL®

PHOSPHORATED CARBOHYDRATE SOLUTION

- before and after anesthesia
- in early pregnancy
- in epidemic vomiting



EMETROL is a phosphorated carbohydrate solution which controls functional vomiting through a unique physiologic action. Clinical findings have established its broad therapeutic effectiveness.[1]

Since EMETROL is free of antihistamines, barbiturates, narcotics, or stimulants, it may be prescribed for patients of all age groups with complete safety. Its delicious "peppermint candy" taste makes every dose welcome to the patient.

	INFANTS AND CHILDREN	ADULTS
Before and after anesthesia	1-3 teaspoonfuls 15-30 minutes before anesthesia and as soon as feasible after operation	1 or 2 tablespoonfuls at same intervals as for children
Early pregnancy		1 or 2 tablespoonfuls on arising, repeated every three hours or whenever nausea threatens
Epidemic vomiting	1 or 2 teaspoonfuls at 15-minute intervals until vomiting ceases	1 or 2 tablespoonfuls at 15-minute intervals until vomiting ceases

1. Bradley, J. E., et al.: J. Pediat. 38: 41 (Jan.) 1951

LITERATURE AND SAMPLES TO PHYSICIANS ON REQUEST

Kinney® **KINNEY & COMPANY,** *Prescription Products,* COLUMBUS, INDIANA

the most effective iron therapy known[1-7]

mol-iron®

Extensive clinical investigation has consistently revealed that Mol-Iron produces a hemopoietic response characterized as "... striking ... dramatic ..."[1] "... rapid ..."[1,2] ... bringing about a "... better prognosis ..."[3] resulting in a "... greater increase in hemoglobin concentration."[4]

From a comparative study Dieckmann[1] concludes, "We have never had other iron salts so efficacious in pregnant patients."

Mol-Iron has repeatedly been reported to be unusually well tolerated.[2-5,7,8] Kelly[8] states that Mol-Iron is "... generally well tolerated by the majority of patients in whom ... unmodified ferrous sulfate has repeatedly induced symptoms of marked ... intolerance."

mol-iron

mol-iron tablets

mol-iron liquid

mol-iron drops

mol-iron with calcium and vitamin d

mol-iron with liver and vitamins

White's

...id Priddle, H. D.: ...ynec. 57:541, 1949.
...nd Annitto, J. E.: Bull. ...e Mat. Hosp. 1:68, 1948.
...nsurance Med. 4:31, 1948-

... J. B.: Conn. State M. J. 14:930,

...aly, J. C.: J. Lancet 66:218, 1946.
Dieckmann, W. J. et al: Am. J. Obstet. & Gynec. 59:442, 1950.
7. Neary, E. R.: Am. J. Med. Sc. 212:76, 1946.
8. Kelly, H. T.: Penn. M. J. 51:999, 1948.

Nothing you prescribe is more carefully made than Genuine Bayer Aspirin

Through the Menstrual Years of Life . . .

THE frequency with which the menstrual life of so many women is marred by functional aberrations that pass the borderline of physiologic limits, emphasizes the importance of an effective uterine tonic and regulator in the practicing physician's armamentarium.

In ERGOAPIOL (Smith) with SAVIN the action of all the alkaloids of ergot (prepared by hydro-alcoholic extraction) is synergistically enhanced by the presence of apiol and oil of savin. Its sustained tonic action on the uterus provides welcome relief by helping to induce local hyperemia, stimulating smooth, rhythmic uterine contractions and serving as a potent hemostatic agent to control excessive bleeding.

May we send you a copy of the booklet "Menstrual Disorders", available with our compliments to physicians on request.

MARTIN H. SMITH COMPANY
150 LAFAYETTE STREET, NEW YORK 13, N. Y.

ERGOAPIOL (SMITH) *with* SAVIN

INDICATIONS
Amenorrhea, dysmenorrhea, menorrhagia, metrorrhagia and in obstetrics.

DOSAGE
1-2 cap. 3-4 times daily

SUPPLIED
In ethical pkgs. of 20 cap.

The Preferred Uterine Tonic

Prophylactic and therapeutic management of ATHEROSCLEROSIS

"Until recently arteriosclerosis was regarded as an incurable state . . . accumulated evidence refutes these fatalistic resignations."

℞ GERICAPS

for *PATIENTS with coronary artery disease . . . whose families have a history of coronary disease . . . with a predisposition to retinopathy (capillary fragility) . . . who have signs of disturbed cholesterol metabolism . . . who are diabetic, particularly juvenile patients.*

Lipotropics exert an influence on the atherosclerosis process in helping to establish a normal phospholipid-cholesterol ratio, favorable to prevention or amelioration of atherosclerosis.

A low cholesterol and fat diet appears to reduce or eliminate the large fat or cholesterol molecules associated with atherosclerosis. Vitamin supplements are indicated to compensate for deficits in this diet.

Capillary fault can be corrected with adequate rutin and Vitamin C therapy. The best results are obtained when capillary fragility or permeability is corrected before the occurance of retinopathy.

Each capsule supplies

The true lipotropics (choline and inositol) approximately equivalent to one gram—choline dihydrogen citrate, rutin and Vitamin C in adequate amounts—Vitamin A and B Complex factors.

SHERMAN LABORATORIES
BIOLOGICALS • PHARMACEUTICALS
WINDSOR DETROIT 32 MICH LOS ANGELES

3 way protection

Vitamins... Minerals... Trace Elements... all are needed in greatly increased quantities by the OB patient from the moment of conception through lactation, to avoid the serious consequences of malnutrition to both mother and child.

OBRON, FOR THE OB PATIENT, assures 3-way nutritional protection during pregnancy and lactation, with VITAMINS, MINERALS and TRACE ELEMENTS.

For The OB Patient

OBRON

ALL IN ONE CAPSULE

Dicalcium Phos. Anhydrous*	768 mg.
Ferrous Sulfate U.S.P.	64.8 mg.
Vitamin A	5,000 U.S.P. Units
Vitamin D	400 U.S.P. Units
Thiamine Hydrochloride	2 mg.
Riboflavin	2 mg.
Pyridoxine Hydrochloride	0.5 mg.
Ascorbic Acid	37.5 mg.
Niacinamide	20.0 mg.
Calcium Pantothenate	3.0 mg.
Cobalt	0.033 mg.
Copper	0.33 mg.
Iodine	0.05 mg.
Manganese	0.33 mg.
Magnesium	1.0 mg.
Molybdenum	0.07 mg.
Potassium	1.7 mg.
Zinc	0.4 mg.

*Equivalent to 15 gr. Dicalcium Phosphate Dihydrate

Available at all prescription pharmacies, supplied in bottles of 100 capsules

J. B. ROERIG AND COMPANY • 536 LAKE SHORE DR., CHICAGO 11, ILLINOIS

need extra help in your office? use...

Bactine

BRAND Reg. U. S. Pat. Off.

the modern, powerful yet gentle antiseptic

Bactine does many jobs as bactericide, fungicide, deodorant and detergent. Its modern formula gives you *extra* help that saves you time in office, hospital or clinic.

Bactine is a hard worker. Powerful bactericide and fungicide. Keeps surfaces antibacterial for hours. Effective detergent-cleanser. Destroys odors.

Bactine is pleasant to work with. Gentle to skin. Does not stain. Leaves clean, fresh odor.

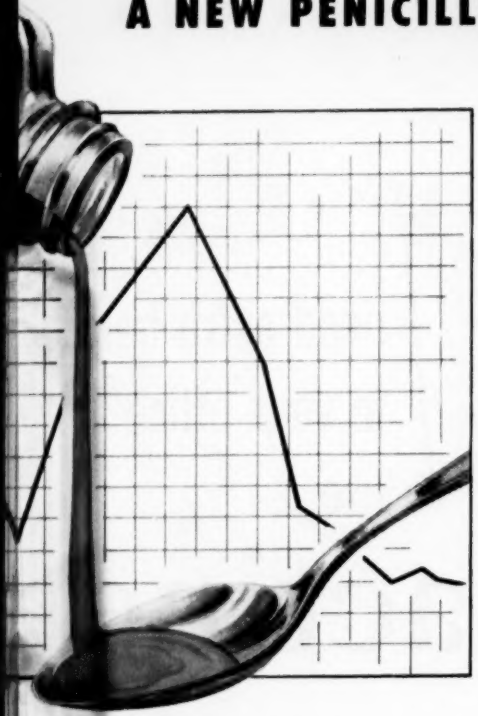
Bactine does many chores. Excellent first-aid measure. Disinfectant for instruments, thermometers, needles, syringes. Sterile storage for instruments. Surgical scrub and skin prep. Detergent-cleanser, deodorant for work surfaces and equipment.

Write for clinical supply and literature.

Bactine: 1-gallon, 1-pint, 6-ounce and 1¾-ounce bottles. At all pharmacies.

MILES LABORATORIES, INC · ELKHART, INDIANA

A NEW PENICILLIN COMPOUND



READY TO USE BY ORAL ROUTE—

No need to prepare suspension

STABLE FOR 18 MONTHS

at ordinary room temperatures . . . no refrigeration required

VERY PALATABLE—

no penicillin taste

DEMONSTRABLE BLOOD LEVELS

readily secured and maintained

SUPPLIED: Bottles of 2 fl. ozs.

BICILLIN differs from other penicillin salts in that it contains 2 moles of penicillin to 1 mole of base.

In clinical effectiveness, it compares favorably with all forms of oral penicillin therapy.[1,2,3] No side effects have been observed.

ORAL SUSPENSION

BICILLIN*

BENZETHACIL

DIBENZYLETHYLENEDIAMINE DIPENICILLIN G WYETH

1. Welch, H., and Putnam, L.E.: Personal communication
2. Lepper, M.H., and Dowling, H.F.: To be published
3. Preston, E., and Coriell, L.F.: Personal communication

Wyeth

Wyeth Incorporated, Philadelphia 2, Pa.

*Trademark

Diarrhea

hints for treatment

A Modern Medicine Editorial

In 9 cases out of 10 the gastroenterologist cannot find an organic cause for diarrhea, and then he must be careful not to be led astray by the report that amebae were found. Laboratory girls are commonly mistaken on this point—they think a fat droplet is a cyst. But even when their report is correct, often the few amebae present are not causing the diarrhea. One must suspect this the minute one notes that an injection of emetine or the giving of 6 capsules of carbarsone in one day had no effect.

Always we physicians should make sure what the patient means by "diarrhea." In many cases it isn't diarrhea at all but a "mucous colitis" in which, when the person is under a nervous tension, he feels a frequent urge to go to the toilet. There all that is passed is a little gas or mucus, some brown froth, or an ounce of watery fluid. The fact that no feces are passed is diagnostic. In a spell there would appear to be great spasm in the transverse and descending colon because for hours no fecal matter comes down out of the cecum. If an enema is taken, the left half of the colon will be found to be empty of feces.

A functional diarrhea often starts slowly, with brief spells which come at long intervals. In the spells the person may have only one or two large movements. Gradually the intervals will shorten. This story is very different from that of diarrhea due originally to amebae or to infection with some dysentery-producing bacillus. That began probably with a violent spell of purging and perhaps some vomiting and fever, and later, the

diarrhea became less severe until it appeared only in occasional spells.

Functional diarrhea comes usually during the day and not at night. It often comes with nervous tension or follows an emotional storm, a panic, or the eating of some unusual food. Often in such cases the doctor can learn that a tendency to diarrhea runs in the family or that it has bothered the patient at intervals ever since he was a child. Often, also, one can learn that the patient has a poor nervous inheritance which for long has made him nervous, tense, and full of overpowering fears. The doctor must suspect a functional diarrhea when it is no better for the elimination from the diet of fresh fruits and salads. Dieting thus does not help.

When diarrhea is present every day the patient should eliminate many allergens by living for two or three days on nothing but oatmeal, lamb, rice, butter, sugar, and canned pears. If this does not help, the trouble is not likely to be due to food sensitiveness. If diarrhea comes in attacks days or weeks apart, the patient should keep a record of the unusual foods eaten just before each spell. Always a person suffering from diarrhea should quickly try the effect of avoiding milk or milk products and should reduce his intake of fluids, especially with meals. Much fluid tends to wash the food far down the bowel before it can be digested in stomach and jejunum. The writer has seen cases of severe diarrhea due purely to the fad of excessive water-drinking.

The patient with severe nervous diarrhea can get back much needed morale by taking, once or twice a day, ½ gr. of codeine, perhaps with ½ gr. of papaverine. Oftentimes all that is needed is that the patient take the codeine and papaverine whenever he or she has to go out for the evening. A quieter bowel will then save much distress and embarrassment. I have never seen a codeine habit come from such use of the drug.

WALTER C. ALVAREZ

• • •

When taking blood pressure readings close attention to details is rewarded by more accurate results.

Proper Use and Care of Sphygmomanometers

American Heart Association Committee to Revise Standardization of Blood Pressure Readings

ALTHOUGH the blood pressure cuff inherently lacks precision in measurement of arterial blood pressure, direct registration is generally impractical. However, if properly employed, a sphygmomanometer kept in good working condition provides useful information.

The patient should be relaxed, comfortable, and recovered from any recent exertion, meals, or apprehension. Either the recumbent or sitting position may be used. The arm should be bared, abducted, slightly flexed at the elbow, and relaxed. If the patient is seated, the forearm should be supported at heart level.

The cuff should be snugly wrapped about the arm with the lower edge about 1 in. above the antecubital space. Venous congestion should be avoided. If an "auscultatory gap" appears, the observation is repeated with the arm raised.

If a mercury manometer is used, the column must be vertical and level with the observer's eye. When the bag is deflated, the mercury level must register zero pressure. Loss of mercury by spillage will cause obvious error. Dirty tubes and oxidation of mercury cause poor meniscus and clogging of air vents. The mercury and manometer should be kept clean.

THE AUTHORS

The Committee of the American Heart Association to Revise Standardization of Blood Pressure Readings has drawn up recommendations for human blood pressure determinations by sphygmomanometers. The accompanying suggestions are the work of this committee, which functioned under the auspices of the Council for High Blood Pressure Research of the Scientific Council of the American Heart Association. The committee members are:

JAMES BORDLEY III, M.D.
Mary Imogene Bassett Hospital, Cooperstown, N.Y.

CHARLES A. R. CONNOR, M.D.
New York University, New York City

W. F. HAMILTON, M.D.
Medical College of Georgia, Augusta

WILLIAM J. KERR, M.D.
University of California, San Francisco

CARL J. WIGGERS, M.D., *Chairman*
Western Reserve University, Cleveland

If an aneroid manometer is used, the instrument should be checked periodically with a mercury type of sphygmomanometer.

Bags and cuffs should be varied according to the patient's age and the extremity used. For the adult

Recommendations for human blood pressure determinations by sphygmomanometers. Circulation 4:503-509, 1951.

arm, a cuff 12 cm. in width is best. For children under 8 years of age, an 8- or 9-cm. bag is recommended. A 5- or 6-cm. cuff is indicated for patients less than 4 years old. The small infant arm requires a bag width of 2.5 cm. or less.

The general range of the systolic pressure may be gauged by the palpatory method. The cuff is then inflated to a pressure about 30 mm. of Hg above the point of disappearance of the radial pulse.

With the stethoscope then placed snugly over the brachial artery in the antecubital space, the manometer pressure is allowed to fall at a steady rate of 2 to 3 mm. of Hg per heart beat. A faster rate may prevent equalization of pressures between bag and manometer; a slower descent causes trapping of blood between systolic and diastolic pressures, with resultant error.

With the auscultatory method, the systolic pressure is indicated by a sound audible with each heart beat. With arrhythmias, an occasional forceful beat may be heard before the true systolic level is reached.

As the pressure falls, the sounds become muffled, then clear, then muffled, and finally disappear. The second muffling of sound has previously been considered to reflect the diastolic blood pressure. However, James Bordley III, M.D., Charles A. R. Connor, M.D., W. F. Hamilton, M.D., William J. Kerr, M.D., and Carl J. Wiggers, M.D., believe that the disappearance of sounds is more closely related to true diastolic pressure. Direct intraarterial measurements of blood pressure substantiate this conclusion.

In a few healthy people and with some diseases, such as aortic valve insufficiency, hyperthyroidism, or fever, auscultatory sounds may be heard down to very low levels, even to zero. Only in such instances should the point of muffling be taken as the diastolic pressure.

To measure blood pressure in the thighs, a wider cuff and bag are needed. The bag diameter should be 18 cm. for adults.

Usually the systolic pressure in the legs is 10 to 40 mm. of Hg higher than in the arms. But the diastolic readings are essentially the same in arm and thigh.

¶ CARDIOSPASM may be relieved by procaine anesthesia of the esophagus. If the usual sedatives, antacids, and antispasmodics fail, D. C. Balfour, Jr., M.D., and G. K. Wharton, M.D., of the University of Southern California and the Good Hope Clinic, Los Angeles, administer 4 cc. of 2% procaine hydrochloride solution mixed with 1 dram of Metamucil and 60 cc. of water. The mixture is swallowed as it jells. Action begins in ten minutes and effects last one and a half to two hours. The dose is repeated three times daily half an hour before meals until symptoms subside; treatment is resumed on recurrence. The method was effective in 8 cases observed up to six months.

Gastroenterology 18:606-608, 1951.

Disturbance in nutrition may be a cause of cardiac disease or may complicate the course of congestive failure.

Nutritional Factors in Heart Disease

THOMAS M. DURANT, M.D.
Temple University, Philadelphia

EVIDENCE suggests that overeating may cause cardiovascular disease which, in turn, often leads to malnutrition. The physician must decide whether a patient will benefit more from limitation of food or from augmentation of diet.

Although conclusive data are lacking, many clinical and experimental studies suggest that atherosclerosis results from excessive dietary fat with a disturbance of lipid metabolism. Animal studies relating cholesterol intake to vascular degeneration are familiar to all.

Nutritional surveys also reveal a parallelism between fat intake and the incidence of coronary artery disease. For example, in the United States the fat portion of the average person's diet has steadily increased. The number of deaths from coronary atherosclerosis has similarly mounted. Business and professional men, among whom coronary disease is especially prevalent, eat more fat than do others.

Such data are suggestive but inconclusive, warns Thomas M. Durant, M.D. A cause and effect relationship between dietary fat and arterial disease remains to be proved for human beings. Nevertheless, the most valuable current approach to the problem of atherosclerosis is through drastic limitation of the patient's total fat intake.

Limitation of cholesterol or of animal fat alone is insufficient. Vegetable fat intake must also be curtailed. For prophylactic purposes, total fat should probably be limited to 25 gm. per day for men with hypercholesterolemia or with a strong family tendency to early coronary disease. The effectiveness of such therapy may be gauged by a reduction in lipoproteins and cholesterol and by a feeling of well-being in the patient.

When restricting dietary fat, protein intake should be maintained and is supplied, in large part, from such foods as skim milk, cottage cheese, sea foods, and gelatin. Total calories are kept up by increasing carbohydrate foods, unless weight reduction is desired. Vitamin A supplements are given. The dietitian should be consulted for advice on increasing the palatability of a low-fat diet.

Conversely, patients with congestive heart failure tend to undereat and often become malnourished. Many factors contribute to the state of semistarvation. Of principal importance is the general unsavoriness of the low-salt diet. However, the remarkable therapeutic value of sodi-

Nutritional factors in cardiac disease. Ann. Int. Med. 35:397-408, 1951.

um restriction for cardiac decompensation makes such a diet highly desirable.

Here, too, dietitians can provide valuable suggestions. Salt substitutes, especially those containing potassium, are useful. Resins capable of holding sodium in the bowel may permit a 5- to 10-fold increase in dietary sodium. Up to 15 gm. of resin with ammonium and potassium base may be given with each meal.

Other cardiac therapeutic measures may cause gastric disturbance and anorexia. Chief among these are ammonium chloride and digitalis preparations if given in excess.

The pseudohibernation effect of drastic food restriction may appear temporarily beneficial to the cardiac patient and cause amelioration of symptoms. However, vitamin deficiency, hypoproteinemia, and occasionally nutritional anemia soon cause deleterious results.

Thiamin deficiency decreases peripheral resistance. To compensate, the cardiac output is raised, with subsequent greater cardiac work load. In addition, a damaging effect on myocardial metabolism may result from vitamin deficiency.

Hypoproteinemia enhances edema formation and may make mercurial diuretics ineffective. Administration of salt-free human albumin intravenously often renders diuretics effective again.

Of more importance is the prevention of protein depletion. An adequate intake of calories as well as of protein is necessary for a positive protein balance. Protein will be wasted for energy if caloric demands are not adequately met from other food sources.

Signs of vitamin deficiency should be watched for in patients with chronic heart disease. Pellagrous glossitis or peripheral neuritis warrant administration of vitamin B complex supplements.

With overt congestive failure, thiamin and niacinamide should be given parenterally. Later, the oral route may be used.

¶ TESTS FOR HYPERTENSION should always include a search for circulating epinephrine from a possible pheochromocytoma or paraganglioma. If uremia has not developed, Regitine is injected into muscles in a 5-mg. dose. Blood pressure drops abruptly if the patient has an adrenal tumor and remains low for several hours. J. R. Emlet, M.D., and associates of Duke University, Durham, N. C., confirm positive or doubtful results with a 15-mg. intravenous injection of piperoxan, which has similar effects. Regitine dosages were evaluated in 62 cases of hypertensive vascular disease without uremia, 11 with uremia, and 4 cases of pheochromocytoma. Results were unreliable for patients with high nonprotein nitrogen. Repeated injections of Regitine before and during operation for removal of a pheochromocytoma prevent the occurrence of epinephrine intoxication.

J.A.M.A. 146:1383-1386, 1951.

The physician must keep many diagnostic possibilities in mind when attempting to differentiate the nonbacterial pneumonias.

Diagnosis of Nonbacterial Pneumonia

F. TREMAINE BILLINGS, JR., M.D.
Vanderbilt University, Nashville, Tenn.

FEW types of nonbacterial infections of the lung produce typical symptoms. Differential diagnosis, although of utmost importance, is therefore difficult.

Several nonbacterial pathogens are capable of causing pneumonitis. A few respond to specific antibiotic therapy. Others are easily confused with diseases which require definitive management, such as bronchial carcinoma, pulmonary infarction, fungous infections, or tuberculosis.

Atypical pneumonia is probably of viral origin. Clinically, a gradual onset, dry hacking cough, severe headache, and low or normal leukocyte count help to differentiate virus pneumonitis from lobar pneumonia. Early physical signs in the chest are slight or absent. Later, râles and consolidation may develop.

The diagnosis is occasionally first indicated by chest roentgenograms. Scattered, soft, patchy areas of increased density are common. F. Tremaine Billings, M.D., emphasizes that although the roentgen picture may strengthen the impression of atypical pneumonia, a radiologist cannot make a definite diagnosis of the disease. Exact diagnosis must await convalescence, when cold hemagglutinins or streptococcus MG agglutinins may be found in the serum.

Treatment of patients with atypical pneumonia is largely symptomatic and supportive. The value of aureomycin is unproved, but the drug should be given a trial, especially in severe cases.

Psittacosis, a viral pneumonitis contracted from birds, closely resembles infection with fulminating atypical pneumonia. The diagnosis is difficult to establish and depends upon the demonstration of specific antibodies in serum drawn during convalescence. Known contact with birds should suggest the disease. Penicillin, aureomycin, sulfadiazine, and chloramphenicol have been reported to be effective against psittacosis.

Q fever, the only rickettsial infection without skin lesions, is successfully treated by aureomycin. Constitutional symptoms are predominant but pulmonary infiltration occurs. The roentgen picture is indistinguishable from that of atypical pneumonia. Special laboratory technics are required to isolate the pathogen, *Rickettsia burneti,* from the patient's blood. Specific antibodies also develop in the serum.

Nonbacterial pneumonitis occasionally occurs as a part of certain other infectious diseases such as *influenza, chickenpox, measles,* or *infectious mononucleosis.*

Acute nonbacterial pneumonias. Am. Pract. 2:833-839, 1951.

Fortunately rare, air embolism may occur in either the arteries or veins with disastrous or even fatal result.

Causes and Treatment of Air Embolism

ARCHIBALD C. COHEN, M.D., GEORGE C. GLINSKY, M.D., AND GEORGE E. MARTIN, M.D.
Veterans Administration Hospital, Butler, Pa.

K. I. FETTERHOFF, M.D.
University of Pittsburgh

TWO forms of air embolism exist—arterial and venous. Both are uncommon but so catastrophic that knowledge of the mechanism involved must be kept in mind.

Arterial air embolism is usually associated with artificial pneumothorax, thoracentesis, or thoracic surgery and occurs regularly as a part of caisson disease.

Air enters a pulmonary vein, passes through the left ventricle, and reaches systemic arteries on the upper part of the body, where the skin may have a resultant marbled appearance. A small skin incision in this region may show air bubbles in the blood.

Air in a cerebral artery can cause aphasia, blindness, hemiplegia, convulsions, and death. Myocardial infarction may result from entry of air into a coronary artery.

The treatment of arterial air embolism outlined by Archibald C. Cohen, M.D., George C. Glinsky, M.D., George E. Martin, M.D., and K. I. Fetterhoff, M.D., includes lowering the head to prevent more air from reaching the brain, application of external heat as necessary, treatment of shock when present, and control of convulsions.

Air embolism. Ann. Int. Med. 35:779-784, 1951.

Venous air embolism can occur after surgical operations, during transfusions or intravenous injections. The uterine sinuses have occasionally been a point of air entry during delivery, pelvic operation, vaginal insufflation, or transuterine air injection. Air embolism has occurred during mastectomy or injection of air into the peritoneal cavity.

When a sufficient quantity of air passes from a systemic vein into the right side of the heart, a sensation of bubbling occurs in the region overlying the pulmonary conus. A churning sound known as a mill-wheel murmur can often be heard plainly even without the aid of a stethoscope.

An air trap in the right ventricle produces obstruction and an ensuing elevated venous pressure, cyanosis, and, often, syncope. Obstruction also causes forward cardiac failure. Dyspnea, hyperpnea, and tachypnea so severe as sometimes to produce alkalosis and tetany result from embolism of small and medium sized pulmonary arteries.

The prognosis depends on the amount of air which reaches the circulation, the speed of entry, and

the position of the body when embolism occurs.

Treatment consists in putting the patient in the left lateral position, thereby favoring displacement of the air trap and relief of the obstruction. Ventricular puncture and aspiration of air may be tried. Appropriate therapy should, of course, be given for shock when present.

Use of Artificial Pneumothorax

ROGER S. MITCHELL, M.D.

BEST results with pneumothorax in the treatment of patients with tuberculosis are achieved if roentgenograms show light, fluffy, and scattered rather than heavy, dense, or grossly confluent shadows.

Cavity size alone is a much less reliable guide in the selection of patients for pneumothorax than is the extent of destruction as measured by amount of cavitation and of presumed caseation and the degree of contraction resulting from old disease or obstructive factors. The location of disease is of minor significance.

Two or three months of bed rest before induction of collapse therapy may bring sufficient improvement to preclude need for the measure or will reduce the hazard of empyema. For patients with heavy roentgenographic shadows preliminary use of chemotherapy may reduce the hazards of pneumothorax. After collapse measures, at least three months of bed rest should be prescribed; exercise should not be permitted for three to five months after cavity closure.

After an analysis of 557 cases, Roger S. Mitchell, M.D., of the University of Vermont, Burlington, does not recommend pneumothorax for old fibroid disease, cavitation in the contralateral lung, or major bronchial obstruction. If the patient has a granulating or ulcerative process in a major bronchus, regression of the disease should be obtained with chemotherapy before collapse is attempted.

Indications for the abandonment of pneumothorax and the consideration of other treatment include:

- Lack of free anatomic collapse
- Sudden persistent contraction and airlessness of a lobe or lung soon after starting collapse measures
- Failure to achieve cavity closure and sputum conversion within three to four months
- Continued formation of fluid in great enough amounts to hide the hemidiaphragm for a month or longer
- Cloudy or infected fluid

Depending on the extent and severity of the original lesion, pneumothorax should be continued for eighteen to thirty-six months after cavity closure, sputum conversion, and relief of symptoms.

Artificial pneumothorax: a statistical analysis of 557 cases initiated in 1930-1939 and followed in 1949. Am. Rev. Tuberc. 64:151-158, 1951.

Therapy is largely ineffectual and prognosis grave with malignant hypertension, but new methods of treatment offer some slight hope.

Malignant Hypertension

THEODORE N. PULLMAN, M.D., AND ALF S. ALVING, M.D.
University of Chicago

BECAUSE of the practically uniformly fatal outcome, malignant hypertension should be carefully distinguished from other diseases producing many similar manifestations.

Typically, malignant hypertension develops in a previously hypertensive person, usually a man in the fourth decade of life.

The onset is abrupt with severe headaches, dizziness, and visual disturbances. Left ventricular heart failure and angina pectoris may appear.

Early physical effects include a much elevated blood pressure, especially diastolic. Funduscopic examination reveals papilledema with retinal hemorrhages and exudates. The arterioles show spasm and varying degrees of arteriosclerosis, depending upon the duration of the hypertension.

Since papilledema is almost invariably present, a diagnosis of malignant hypertension without this sign is apt to be erroneous.

Progressive loss of weight and strength is common. Later, anemia and a bleeding tendency develop. Nosebleeds are frequent. Unexplained bouts of severe epigastric pain occur. Various neurologic symptoms and signs may appear.

Urinalysis will reveal slight to moderate albuminuria, hematuria, often profuse, and hyaline, granular, and cellular casts.

Serious impairment of renal processes develops in all cases although, very early in the disease, kidney function is occasionally normal or little impaired. However, the blood urea nitrogen rises steadily and most patients with malignant hypertension die of uremia. The entire course of the illness is usually less than two years.

Pathologically, the typical lesion of malignant hypertension is a proliferative endarteritis of the arterioles throughout the body, particularly in the kidneys. Mucoid material collects beneath the arteriolar endothelium and the media undergoes necrosis.

DIFFERENTIAL DIAGNOSIS

Theodore N. Pullman, M.D., and Alf S. Alving, M.D., emphasize the need for differentiating malignant hypertension from *hypertensive encephalopathy*, since the prognosis of the latter illness is better. Confusion arises from the presence of papilledema in both illnesses. However, necrotizing arteriolitis is absent in simple encephalopathy caused by hypertension so that renal function is normal or only slightly depressed. Hematuria is absent or not significant.

Tumor of the brain may cause

Malignant hypertension. M. Clin. North America 35:111-131, 1951.

papilledema, hypertension, and neurologic signs. The hypertension is slight or moderate and renal function is unimpaired. Also, spinal fluid protein is higher with brain tumor than with malignant hypertension.

Chronic pyelonephritis may lead to hypertension and uremia, but the loss of kidney function requires years instead of months to develop. Acute glomerulonephritis with a hypertension severe enough to produce papilledema may closely resemble malignant hypertension. However, inspection of retinal arterioles usually fails to reveal arteriosclerotic changes in acute nephritis.

Periarteritis nodosa is another possible cause of hypertension, uremia, and papilledema. Other stigmas of periarteritis, such as eosinophilia, assist the differentiation from malignant hypertension.

TREATMENT

Therapy for malignant hypertension is as yet palliative, but much can be done to alleviate the distressing symptoms. Headache may respond to slow removal of spinal fluid until the pressure is halved. Intravenous sorbitol, 50 cc. of a 50% solution, may be employed once or twice daily. Another drug that is worth trying is magnesium sulfate; 500 cc. of a 2% solution is administered intravenously over thirty to sixty minutes. The blood pressure must be watched for a sudden fall when magnesium sulfate is given.

If seen early, before cardiac and renal functions are seriously impaired, the patient may benefit from sympathectomy. The rice-fruit diet is generally of no value, although moderate restriction of salt is indicated if congestive heart failure is present.

Veratrum viride in doses of 2 to 7 mg. four times daily may cause a hypotensive response, but toxicity is common. Injection of a water-soluble bacterial pyrogen is occasionally beneficial, causing improvement of cardiac and renal function. The pyrogen must be given repeatedly and tolerance often develops, but the method should be tried, especially if sympathectomy cannot be used because of the degree of cardiorenal damage.

Other supportive measures employed for uremia and heart failure are usually required.

¶ ENTEROCOCCAL ENDOCARDITIS commonly resists penicillin when used alone but may be controlled by combined antibiotic therapy. William C. Robbins, M.D., and Ralph Tompsett, M.D., of the New York Hospital–Cornell Medical Center, New York City, give intramuscular injections of 500,000 units of crystalline penicillin every two hours and 0.5 gm. of streptomycin or dihydrostreptomycin four times daily, a total of 6,000,000 units and 2 gm. per day. When possible, treatment is continued twenty-eight to forty-two days. In 5 of 7 cases bacteremia subsided within forty-eight hours and did not recur. The other 2 patients died before adequate dosage could be given.

Am. J. Med. 10:278-298, 1951.

Though rare, primary infection with herpes simplex virus occurs in adults and may not resemble acute gingivostomatitis of childhood.

Primary Herpes Simplex in Adults

EDWIN D. KILBOURNE, M.D., AND FRANK L. HORSFALL, JR., M.D.
Rockefeller Institute for Medical Research, New York City

DEMONSTRATION of specific neutralizing or complement-fixing antibodies during convalescence but not in the acute phase of the illness is essential to the diagnosis of adult primary herpes simplex virus infection. Since the herpes virus is found in the tissues of most adults, recovery of the virus and evidence of pathologic lesions are of secondary importance.

Adult primary herpetic infection may be manifested by disease of the mouth, throat, cornea, genitalia, skin, or central nervous system or by illness with few localizing signs. The infection may occur in association with disease of variable nature quite unlike the acute gingivostomatitis typical of the infantile infection.

In 2 of the 4 cases observed by Edwin D. Kilbourne, M.D., and Frank L. Horsfall, Jr., M.D., the condition resembled infectious mononucleosis. Some poorly defined illnesses now categorized clinically but not serologically as infectious mononucleosis may be of herpetic origin.

Infection with herpes simplex virus commonly occurs in infancy and is then associated with acute stomatitis. After primary infantile disease, the virus persists in the tissues and at times is activated and induces slight recurrent disorders in the form of vesicular lesions of the lips or other sites invaded during the initial infection.

About 65 to 95% of adults have serologic evidence of previous infection with the virus. Individuals subject to recurrent herpes infection have measurable concentrations of specific neutralizing antibody in the sera. This paradoxic situation probably results from the continuing antigenic stimulus by the latent virus.

Virus recovery and neutralization may be performed by means of intraperitoneal inoculation of newborn mice.

Herpes simplex virus has long been postulated as a factor in nervous system disease. The virus has been suggested as a cause of epidemic encephalitis and as a ubiquitous virus sometimes recoverable from the spinal fluid of asymptomatic individuals.

Serologic evidence indicates an association between herpes simplex and benign lymphocytic meningitis. Serologically proved primary herpes simplex virus infection has been cited in stomatitis, meningitis, corneal keratitis, vulvovaginitis, pharyngitis, encephalitis, and a variola-like skin eruption.

The herpes simplex virus may be etiologically related to recurrent aphthous stomatitis.

Primary herpes simplex virus infection of the adult. Arch. Int. Med. 88:495-502, 1951.

Paroxysmal pulmonary edema that has resisted other treatment may be relieved by inhalation of ethyl alcohol combined with pressure oxygen.

Ethyl Alcohol for Pulmonary Edema

ABRAHAM GOOTNICK, M.D., HENRY I. LIPSON, M.D., AND JOSEPH TURBIN, M.D.
Brooklyn Veterans Administration Hospital

INHALATION of ethyl alcohol can be combined with pressure oxygen for effective therapy of pulmonary edema that has resisted all other treatment.

The success of alcohol presumably results from an antifoaming action which alters surface tension at the fluid-air interface, causing the foam bubbles to collapse, and from the volatility of the alcohol, allowing penetration into the fine air spaces.

The equipment used by Abraham Gootnick, M.D., Henry I. Lipson, M.D., and Joseph Turbin, M.D., for ethyl alcohol inhalation consists of a single tank from which oxygen is passed through a simple vaporizer—an 8-oz. bottle, half filled with 50% ethyl alcohol, with a rubber stopper that holds two large-bore metal tubes. One of these tubes reaches to the bottom of the bottle and delivers oxygen, which bubbles through the alcohol; the other tube is above the fluid level and carries the alcohol-laden oxygen to the meter mask.

All sprayers and filters are removed so that pressure loss is decreased. This equipment can be easily and inexpensively improvised wherever oxygen therapy is practiced.

Paroxysmal pulmonary edema may develop in a wide variety of situations. Many are reversible and the patient recovers if he can be tided over the acute threat of asphyxia.

In one case, inhalation of alcohol was used for a 58-year-old man who, one year after an extensive myocardial infarction, was brought to the emergency ward with acute pulmonary edema. Treatment included rapid digitalization and administration of aminophylline, morphine, and 100% oxygen under pressure. The patient was in coma, did not respond, and lapsed into shock.

Alcohol inhalation was then instituted. Within an hour the pulmonary edema cleared and consciousness was regained. Thereafter the patient was maintained in an oxygen tent without pressure respiration or alcohol inhalation. Subsequent study disclosed that the abrupt onset of pulmonary edema had been a manifestation of a fresh myocardial infarction. Convalescence was uneventful.

Inhalation of alcohol does not significantly raise the alcohol concentration in the blood of normal males. The rate of metabolic conversion apparently keeps pace with that of metabolic absorption. At feasible rates of intravenous administration, alcohol is not effective.

Inhalation of ethyl alcohol for pulmonary edema. New England J. Med. 245:842-843, 1951.

Successful treatment of cardiac arrest in the form of ventricular fibrillation is most consistently achieved by electrical apparatus.

Electric Defibrillation of the Ventricles

WILLIAM B. KOUWENHOVEN AND JEROME HAROLD KAY, M.D.
Johns Hopkins University, Baltimore

A PORTABLE electric unit designed for the operating room usually restores a good beat to fibrillating cardiac ventricles.

The assembly recommended by William B. Kouwenhoven and Jerome Harold Kay, M.D., is simple and inexpensive (see diagram).

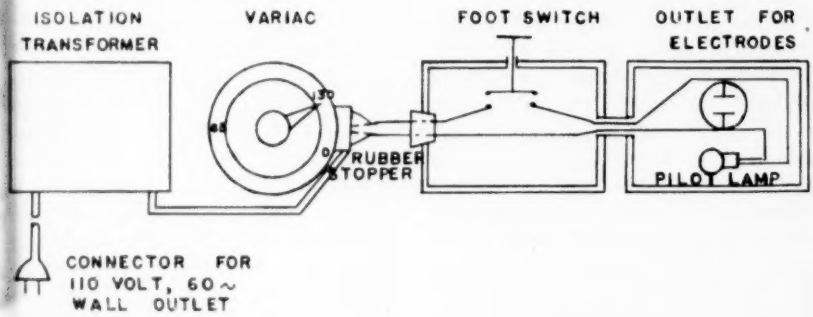
Components are [1] an isolation transformer to separate the grounded power source from current supplied to the electrodes, [2] a variac, or variable voltage transformer, [3] a foot switch, [4] an outlet for the plug attached to the electrode cord, and [5] a pilot lamp to show whether all is in working order when the switch is pressed.

Equipment is mounted on the base of a box that lifts off like a portable typewriter case. During use, the power unit is exposed.

The standard 600-watt isolation transformer has a ratio of 120 volts primary to 120 volts secondary. A cord from the primary side reaches a wall receptacle supplying a 120-volt, 60-cycle alternating current.

Output of the secondary winding is separated from the ground connection to prevent spark hazard or shock to the surgical team. Secondary terminals of the isolation transformer are attached to a receptacle on the transformer case.

A 5-ampere, 0- to 135-volt variac is connected with the secondary receptacle of the isolation transformer.



A simple electrical apparatus for the clinical treatment of ventricular fibrillation. Surgery 30:781-786, 1951.

Output is set at 130 volts. A fuse is supplied to protect the equipment from short circuit.

The foot switch for the surgeon is completely enclosed and strongly built. A rubber stopper in the case forms a gas-tight seal about the cord to the variac.

The two-gang condulet attached to the foot switch case is fitted with an outlet, a 6-watt, 125-volt pilot lamp, and a bull's-eye on the cover for viewing the light.

Stainless steel disks form three pairs of electrodes with diameters of $1\frac{1}{8}$, $1\frac{7}{16}$, and $1\frac{3}{4}$ in. for children and adults. Padding of thick plaster felt is sewed to the outer surface through a ring of holes near the edge. Pure gum rubber tubing and neoprene used to insulate electrode handles and cords permit autoclave sterilization.

To operate the electric power unit, the supply cord to the isolation transformer is plugged into the wall outlet, and the electrode cord into the outlet near the pilot lamp.

TECHNIC

The fibrillating heart is first massaged until no longer dilated or cyanotic, usually for a minute or two. Electrodes are soaked in isotonic salt solution and placed on the heart, one on the left ventricle at the apex and the other on the right ventricle just below the right auricle.

A current is passed through the heart for a second or less. After failure of several single shocks, massage is given for another minute, then 6 or 8 shocks are delivered, lasting one-third second each and separated by the same interval.

If many series are unsuccessful, 5 cc. of 1% procaine is injected into the left ventricular cavity, massage is repeated, and electrotherapy continued.

Defibrillation may be followed immediately by strong contractions; if not, the heart is massaged vigorously about forty times a minute. Stimulants may be injected into the left ventricle every two or three minutes.

INJECTABLES

A solution of 1:1,000 epinephrine hydrochloride in 5 cc. of isotonic saline is started with a dose of 1/10 cc. and increased to 1/3 cc., if necessary. If preferred, 2 to 4 cc. of 10% calcium chloride is injected. Massage is continued until the heart beats well alone.

PULMONARY EMBOLUS after pelvic surgery may be prevented by raising the foot of the patient's bed at least 8 in. for ninety-six hours. Patients are encouraged to be ambulant but must resume the head-down position when returning to bed. Richard Torpin, M.D., of the Medical College of Georgia, Augusta, adopted the rule for the gynecologic department more than ten years ago. Since that time no pulmonary emboli have been observed, although about 150 major operations are done annually, most of which involve hysterectomy.

Am. Surgeon 17:703-705, 1951.

Neither prolonged conservative treatment nor ileostomy alone is adequate or safe in cases of intractable ulcerative colitis.

Treatment of Ulcerative Colitis

GEORGE CRILE, JR., M.D., AND RUPERT B. TURNBULL, JR., M.D.
Cleveland Clinic, Cleveland

ONE-STAGE colectomy with simultaneous ileostomy is the safest and most effective therapy for patients with acute toxic ulcerative disease of the colon or the severe intractable chronic disease.

Conservative medical therapy is usually sufficient in mild cases of chronic ulcerative colitis, but at least 20% of the patients do not improve and either die of the disease or become incapacitated, economically and socially.

The rare acute toxic ulcerative colitis may be the first manifestation of the lesion or may be an exacerbation of the chronic condition.

Over a third of the patients with the acute toxic disease die during the first hospitalization and, within five years, the mortality rate doubles whether ileostomy or conservative measures are used. The death rate among patients having one-stage ileostomies and colectomies is only one-third that of those having medical therapy or ileostomies. Moreover, only 13% receiving medical treatment subsequently become well rehabilitated.

ACTH and cortisone are of symptomatic benefit as long as given, but may prevent recognition of a fatal perforation. These agents should be used only in the immediate preoperative period to ameliorate a desperate condition.

The patient who has acute toxic colitis is too sick *not* to be operated upon, since death usually results from the disease and not from the surgery.

The affected colon has become essentially a serosal sac filled with feces, pus, and blood and lined by shaggy ulcers interspersed with ragged mucosa. Ileostomy alone does not completely prevent the continuous loss of blood and protein into the lumen of the bowel and the consequent absorption of the toxic contents. Unless the entire bowel is removed, perforation or highly malignant carcinoma may develop.

After one-stage colectomy with ileostomy, the blood and serum protein loss is quickly stopped, fever and toxemia subside, vitamin deficiency disappears, and the accompanying arthritis is relieved.

George Crile, Jr., M.D., and Rupert B. Turnbull, Jr., M.D., performed 10 ileostomies with simultaneous subtotal colectomies for acute toxic ulcerative colitis; 2 patients died, both of whom were moribund at the time of operation. The others were completely rehabilitated, often returning to work within a few weeks.

The treatment of chronic ulcerative colitis. Cleveland Clin. Quart. 18:239-245, 1951.

The same combined operation was done 22 times in the past two years without a fatality as an elective procedure for treatment of chronic ulcerative colitis.

Multiple-stage operations are complicated by contamination from the ileostomy and the exteriorized stump of the colon. Therefore, such operations cause a higher incidence of wound infection and postoperative morbidity than are entailed with the one-stage procedure.

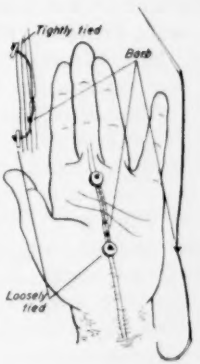
If the ileostomy is properly made and placed, a modern appliance fits snugly without leakage, and re-establishment of intestinal continuity is seldom requested. The possibility of carcinoma in the rectal stump is explained to the patient, and the rectum is usually removed after adjustment to the ileostomy.

Pull-out Wire Suture for Tenorrhaphy

ARLIE R. MANSBERGER, JR., M.D., AND ASSOCIATES

FOR tendon surgery, a braided tantalum wire suture with a semiflexible barb causes little trauma, allows accurate approximation, and is easily removed.

Arlie R. Mansberger, Jr., M.D., Erwin R. Jennings, M.D., Edward P. Smith, Jr., M.D., and George H. Yeager, M.D., of the University of Maryland, Baltimore, use a 42-cm. wire with a curved cutting needle at the proximal end and a straight cutting needle at the other. A semiflexible barb, pointing distally, is 12 cm. from the proximal tip.



The straight needle is threaded through the center of the nearest severed tendon segment until the barb is carefully engaged and is then run through the center of the far segment and brought out through the skin. Traction on the distal end of the wire further engages the barb and pulls the proximal tendon distally, affording easy approximation of the cut edges.

The distal wire is then fixed over a skin button. The proximal end of the wire is drawn out through the skin by the curved cutting needle and is secured without tension over a button (see illustration).

The wound is closed in layers, and the area is immobilized by external fixation. After three weeks, the distal end of the wire is cut flush with the skin, and the wire is removed by gentle traction on the other end.

A new type pull-out wire for tendon surgery: a preliminary report. Bull. School Med. Univ. Maryland 36:119-121, 1951.

Duodenal ulcer treated by extensive partial gastrectomy has a low rate of recurrence when certain criteria are met.

Technical Management of Gastric Resection

FREDERICK P. ROSS, M.D., AND RICHARD WARREN, M.D.
Harvard University, Boston

EXTENSIVE partial gastrectomy is a potent and relatively safe procedure for the patient with complicated duodenal ulcer if certain criteria are met and full use is made of surgical safeguards.

Gastroenterostomy alone is valuable for therapy of an obstructing ulcer in elderly, poor-risk patients but is not satisfactory for general use because of the high rate of recurrence. Vagotomy is indicated only in the case of marginal ulcer, when an adequate resection including the antrum and pylorus has already been done, state Frederick P. Ross, M.D., and Richard Warren, M.D.

In 200 consecutive gastric resections for duodenal ulcer, the mortality rate was 1.5%; the deaths all resulted from technical difficulties. The recurrence rate was 1.7%.

Ulcer pain is a manifestation of penetration and inflammatory activity. Delay of surgery to allow a few days of strict medical management is justified for, if the patient can be rendered asymptomatic, the technical performance of gastrectomy is easier.

The removal of nearly all the lesser curvature and three-fifths or more of the greater curvature is essential for an adequate partial gastrectomy. The resection must extend well above the left gastric artery and beyond the first short gastric vessel leading toward the spleen. To avoid crushing and postoperative edema and to permit individual ligation of bleeding points, only three pairs of narrow Kocher clamps are used on the stomach. No clamps are employed on the jejunum.

All the antrum and all the pyloric ring are removed, since retained antral mucosa incites gastric secretory activity. Excision of a duodenal ulcer is not essential if both antrum and pylorus are removed and the duodenal closure is secure.

The afferent loop of jejunum should be short, no longer than is necessary to assure lack of tension on the anastomotic suture line. Except in case of a long drooping mesocolon, the antecolic anastomosis will yield an afferent jejunal loop nearly as short as the retrocolic, without endangering the colic vessels or chancing obstruction from the mesocolon's slipping down over the jejunal loop. The position in which the jejunal loop hangs freely is the position for anastomosis, whether isoperistaltic or antiperistaltic. An open anastomosis of stomach and jejunum is then usually made in the manner of Hofmeister.

If uncomplicated, the duodenal stump is closed with a single over-

Safeguards in gastric resection for duodenal ulcer. New England J. Med. 245:475-481, 1951.

and-over suture of fine catgut, and then infolded with a seromuscular row of Halsted mattress sutures of fine silk or cotton. If only a narrow margin of normal tissue is found, a single row of well-placed nonabsorbable mattress sutures to bring the seromuscular layers together without tension is infinitely safer than multiple rows of tight sutures.

A two-stage resection is done if the duodenum is obscured and distorted by much inflammatory reaction around a penetrating ulcer so that tissues are inadequate for closure. At the first stage, the stomach is deliberately divided through the antrum, well proximal to the pylorus, the ulcer mass is left behind, the antrum is closed in on itself, and an adequate partial gastrectomy is

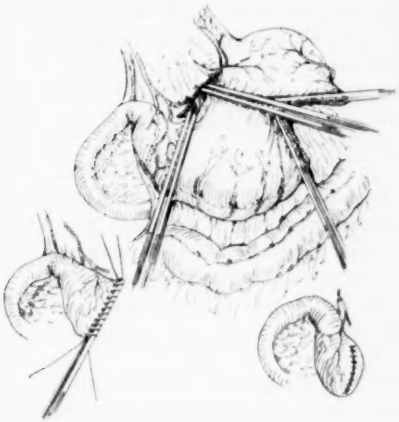


Fig. 1. First stage of gastrectomy

done with establishment of the gastrojejunal anastomosis (Fig. 1). Six weeks later, after the inflammatory process has resolved, the second stage is performed with removal of antrum and pylorus (Fig. 2).

When the duodenum is distorted by scarring, rather than by actual inflammation, from a long-standing ulcer, the common duct may be drawn over toward the area of the ulcer. For protection and identification, the duct is opened higher up, and a probe or woven bougie introduced into the duodenum.

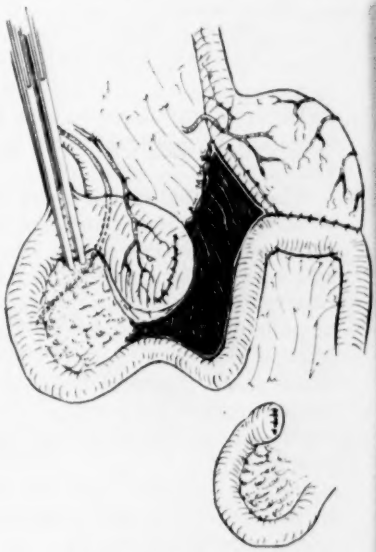


Fig. 2. Second stage of gastrectomy

If the posterior duodenal wall is completely replaced by scar or ulcer, closure is made by rolling the anterior wall over, abutting the seromuscular layers of the anterior wall against the posterior muscularis, and suturing the pancreatic bed and capsule to the normal tissues of the anterior wall with a second row of sutures.

When the security of the closure is doubtful, a Levine tube is threaded into the afferent duodenal loop,

and a large drain is placed near the stump.

Rarely, closure of the duodenum will be impossible, and a catheter is passed through the open end of the duodenum; simultaneously, a catheter jejunostomy is prepared in the efferent jejunal loop. Excess secretions from the duodenal fistula can be reintroduced by the jejunostomy.

A Second Look in Cancer Surgery

OWEN H. WANGENSTEEN, M.D., F. JOHN LEWIS, M.D., AND LYLE A. TONGEN, M.D.

REENTRY of the abdomen may be advisable a few months after an operation for visceral cancer in which lymph node involvement is found.

When regional lymph nodes are not involved, approximately 75% of patients are living and free of the disease five years after radical excision of cancers of the breast and gastrointestinal tract. Only 25% of a similar group of patients, but with lymph node metastases, survive for five years. Failure of surgery among this latter group of patients prompted Owen H. Wangensteen, M.D., F. John Lewis, M.D., and Lyle A. Tongen, M.D., of the University of Minnesota, Minneapolis, to reenter the abdomen of a patient with involved lymph nodes a few months after the initial operation, long before expiration of the silent interval and before symptoms had reappeared.

In the original operation, a large ulcerating adenocarcinoma of the cecum and ascending colon, broadly attached to the anterolateral abdominal wall, was removed together with a generous portion of peritoneum, transversalis fascia, and rectus and oblique abdominal muscles from a 60-year-old woman. To encompass visibly involved mesenteric nodes, 30 cm. of ileum was excised with the specimen. An oblique end-to-end closed anastomosis was made between the ileum and midtransverse colon.

Subsequently, during a period of less than twenty-seven months the patient had 5 other laparotomies. On each occasion, save the last, residual cancer was found. Carcinoma was most frequently found in lymph nodes along the vena cava and aorta.

This approach to the solution of lymph node metastasis is still experimental. Further study may determine what number of patients with residual cancer on the occasion of the second look will eventually be found on subsequent reentry to be free from cancer.

The "second look" in cancer surgery. Journal-Lancet 71:303-307, 1951.

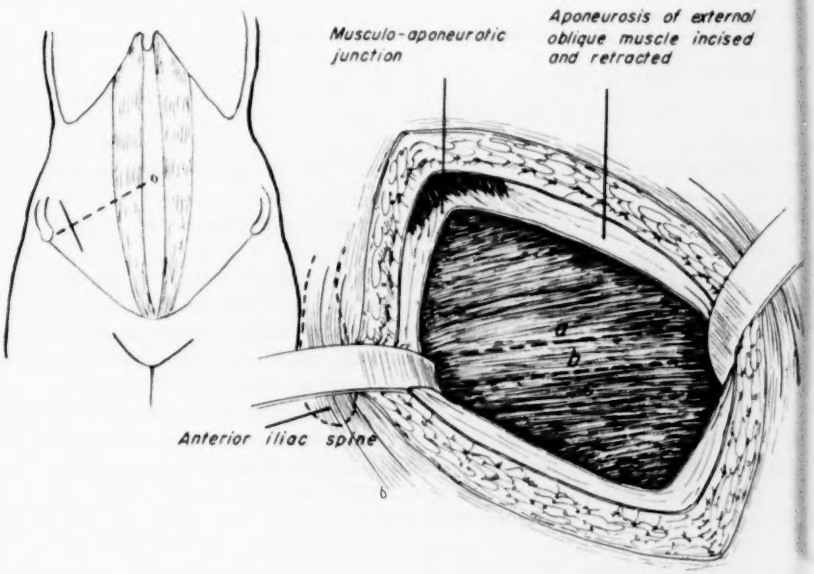
Key point in placing the incision of muscles and peritoneum in appendectomy is the musculo-aponeurotic junction.

Surgical Approach to the Appendix

EARLE I. GREENE, M.D., AND J. MAJOR GREENE, M.D.
Chicago Medical School

DIRECT relationship exists between the site of the base of the appendix and the musculo-aponeurotic juncture of the external oblique muscle. A high juncture point denotes a high-lying appendix; a low juncture, a low appendix.

The lateral gridiron incision of McBurney-Sprengel usually brings the operator into the general vicinity of the appendix when the peritoneum is opened. Earle I. Greene, M.D., and J. Major Greene, M.D., using this approach, determine by measurement the most likely place for opening the muscles and peritoneum to find the base of the appendix.



An incision about 5 cm. long is made 1 to 3 cm. medial to the anterior iliac spine and parallel to the fibers of the external oblique muscle. The midpoint of the incision is on a level with the anterior iliac spine. The aponeurosis of the external ob-

An accurate surgical approach to the appendix. J. Internat. Coll. Surgeons 16:470-474, 1951.

lique is opened and the musculo-aponeurotic junction demonstrated.

The best distance from the junction for separation of the internal oblique muscle, the transversalis muscle, and the peritoneum varies with the age of the patient (see illustration).

The incision is made at *a* for children under 6 years of age; the distance is 3 cm. distal to the musculoaponeurotic junction. For children between 6 and 15 years of age, the incision is made at *b*, 1 cm. lower; for persons over 15 years at *c*, another centimeter lower.

The muscles are separated by blunt dissection parallel to the fibers. The peritoneum should be incised transversely at the same level to avoid injury to the urinary bladder, especially if the appendix is low lying.

In 200 consecutive appendectomies performed by the technic, the base of the appendix presented immediately in 92.5%.

Prevention of Postoperative Atelectasis

JOHN M. BAKER, M.D., L. C. ROETTIG, M.D., AND GEORGE M. CURTIS, M.D.

ATELECTASIS and pneumonia are still frequent and serious complications of surgery, especially thoracic. Both can be prevented by postoperative flushing of the lungs with intravenous sodium iodide.

Iodide expectorants have been used for many years, but usually relatively small amounts of potassium iodide or syrup of hydriodic acid are given orally every three or four hours. Larger doses by the more potent intravenous route are required when secretions are unusually viscid or surgery involves the chest.

Iodides lower the viscosity of sputum by hydration. Intravenous doses rapidly concentrate in bronchial tissues and pass across the respiratory tract mucosa. Serous fluid follows by osmotic action and provides a fluid layer for cilia entangled in thick mucus. With the help of respiratory movements and coughing, secretions are soon expelled.

John M. Baker, M.D., L. C. Roettig, M.D., and George M. Curtis, M.D., of Ohio State University, Columbus, routinely administer 1 gm. of sodium iodide intravenously twice a day for three or four days, starting the evening after operation. About fifteen minutes later the patient is asked to cough, since the maximum secretory effect occurs at this time.

The method was completely effective in 100 consecutive cases. Operations were of various types with general anesthesia.

The prevention and treatment of atelectasis by control of bronchial secretions. Ann. Surg. 134:641-652, 1951.

Pituitary extract supplies a useful test for abdominal pregnancy, a possibility that should not be forgotten in obstetric diagnosis

Management of Abdominal Pregnancy

JOHN B. CROSS, M.D., WILLIAM M. LESTER, M.D., AND JOHN R. MC CAIN, M.D.
Emory University, Atlanta

FETAL growth outside the uterus and tubes, a rare but exceedingly dangerous complication of pregnancy, is misinterpreted far too often.

The possibility should be considered for any woman of childbearing age with an abdominal mass, and in all obstetric cases with unusual symptoms and signs. To aid early diagnosis, John B. Cross, M.D., William M. Lester, M.D., and John R. McCain, M.D., use injection of pituitary extract to contract the uterus.

At Grady Memorial Hospital, 19 cases of abdominal pregnancy were observed during 1934-50, an incidence of 1 in over 2,000 deliveries.

The condition was recognized within a week after onset of symptoms in only 8 cases. In 7 instances the error in diagnosis continued more than two months, even after 1 to 3 hospital admissions, and in 3 cases until operation.

The first hint that something is wrong may be abdominal pain or tenderness. The cervix is frequently displaced, but routine examination seldom reveals a mass separate from the uterus.

Among the mistaken diagnoses are pyelonephritis, uterine myoma, ovarian cyst, or pelvic abscess without pregnancy; false labor; and pelvic neoplasm or other disorders with pregnancy.

Examination should give methodical replies to the following simple questions:

- For any woman in childbearing years with an abdominal mass:

  Is this patient pregnant?

- For pregnant women with abdominal or pelvic symptoms or other peculiar manifestations:

  Can a mass be found outside the uterus?

- When an extrauterine mass is perceived with obvious gestation:

  Is the child developing within the uterus?

- After missed abortion or missed labor, signs of fetal death:

  Is the pregnancy uterine?

The abdomen and pelvis should first be palpated bimanually, including rectovaginal technic. A mass or masses should be outlined with the hands.

Meanwhile 1 minim of pituitary extract such as Pitocin or Pituitrin is injected subcutaneously. This amount rarely causes a palpable uterine contraction with abdominal pregnancy, but will determine uterine sensitivity.

After fifteen minutes with no response, 5 minims of extract is intro-

The diagnosis and management of abdominal pregnancy. Am. J. Obst. & Gynec. 62:303-311, 1951.

duced with the hands still in place. During any type of pregnancy the uterus will contract within fifteen minutes, so firmly that other masses, no matter how near, are easily identified.

One should remember, however, that as the fetus develops in the abdominal cavity, the uterus may enlarge to the size of a four-month gestation.

Ether and a mask should be on hand. If pregnancy is normal, anesthetic is administered until the uterus relaxes, then sedatives, to prevent abortion or premature labor.

Although an ordinary scout film may show extrauterine growth, lateral films or soft tissue methods increase the likelihood of positive diagnosis. Abnormally high or transverse position or failure of the fetus to change position in serial films, fetal parts visualized just under the abdominal wall, and lack of a uterine shadow are suggestive.

Surgery should be undertaken as soon as possible. Even a week's delay increases the risk of intestinal invasion by placental villi or of preoperative infection by a macerated fetus.

The placenta should not be disturbed, since fatal hemorrhage may result from partial or complete removal. Tissue left in place is commonly absorbed, and later complications are managed with relatively slight risk.

The abdomen is preferably closed without packs or drains.

Endometrial Cancer and Feminizing Ovarian Tumor

JAMES M. INGRAM, JR., M.D., AND EMIL NOVAK, M.D.

CARCINOMA of the uterus frequently occurs with feminizing mesenchymomas of the ovary. Although causal relationships are not definitely established, hyperestrogenism appears to be a significant factor in the development of endometrial carcinoma.

After the menopause, feminizing ovarian tumors are associated with endometrial carcinoma in 15 to 27% of cases, according to James M. Ingram, Jr., M.D., of Duke University, Durham, N.C., and Emil Novak, M.D., of Johns Hopkins University, Baltimore. The combination occurs more often with thecomas than with granulosa-cell tumors, probably because of the greater estrogen production of the former.

Hyperestrogenism of varying degree is usually present with endometrial carcinoma. If a woman is genetically predisposed to cancer, this hyperestrogenism may be the one added factor that sets off carcinogenesis. In some predisposed postmenopausal women, endometrial hyperplasia may be capable of transformation into carcinoma.

Endometrial carcinoma associated with feminizing ovarian tumors. Am. J. Obst. & Gynec. 61:774-789, 1951.

Underweight or overweight at the time of conception or deviations in the pattern of gain during pregnancy are harbingers of trouble.

Malnutrition, Toxemia, and Prematurity

WINSLOW T. TOMPKINS, M.D.
University of Pennsylvania, Philadelphia

DOROTHY G. WIEHL
Milbank Memorial Fund, New York City

CHANCES for a smooth, full-term pregnancy seem best if the patient's pregravid weight is standard and a total of about 24 lb. is gained at an even rate before delivery.

Preeclampsia and eclampsia are more prevalent among unusually heavy women than among those of standard weight. But toxemia is twice as frequent with patients too thin at the start of pregnancy as with overweight women. Moreover, either initial low weight or inability to gain properly will increase the incidence of prematurity.

A delicate nutritional balance must be kept throughout gestation, if necessary by supplementary protein and vitamins. An attempt to compensate for early deficiency late in the second trimester may cause severe toxicity.

Winslow T. Tompkins, M.D., and Dorothy G. Wiehl analyzed the effects of weight status on toxemia and length of pregnancy for 760 women who gave birth to single viable babies. The standard pattern of weight gain was derived from 60 carefully selected women who produced full-term living infants.

During gestation, none of these 60 mothers had more than slight transient edema, nausea, or vomiting or diastolic blood pressure above 88. The patients' weights as pregnancy began were within 10% of the norm for height and by the thirteenth week were the same or higher, with 2 minor exceptions. The 24-lb. total gain was well distributed. For example, an average of 0.8 lb. was added weekly through most of the second trimester.

Deviations from the standard weight curve give ample warning of dysfunction before a catastrophe results. Toxemia will develop in 6% of women who are 20% or more overweight at conception and in 11.1% of those 20% underweight when pregnancy starts.

The incidence of toxic symptoms and true toxemia increases if abnormal weight gain is made in the first trimester, though perhaps only because of poor nutrition before conception. In the second trimester, increment of 5.5 lb. per month produces a surplus of more than 6 lb. and doubles the incidence of preeclampsia.

About half of the women persistently overweight through the last six months have toxic symptoms, but

Nutritional deficiencies as a causal factor in toxemia and premature labor. Am. J. Obst. & Gynec. 62:898-919, 1951.

the few whose gain is greatly reduced in the third trimester fare better. A small number are deficient 5 lb. or more after six months of pregnancy, then become at least 4 lb. overweight. More than two-fifths of the women in this category have toxic symptoms, strong evidence against delayed compensation.

When extra protein and vitamins are given, the rate of toxemia falls from 4.1 to 0.6%. About 18% of patients with toxic symptoms who are not given supplementary vitamins and protein become preeclamptic but only 3% of those with supplements.

The pattern of prematurity differs from that of toxemia, except that low weight just before pregnancy involves the greatest risk of both complications.

Any dysfunction, such as nausea and vomiting, must be corrected as early as possible. The effects of malnutrition on onset of labor are unalterable by the end of the second trimester.

Pregravid weight deficit of more than 5% is related to prematurity in 22.2% of cases. However, dietary supplements reduce the incidence to 8.9%.

Less than average gain in both the first and second trimester is followed by premature labor in 24.4% of instances, at least double the rate associated with average gain in either period. After twenty-four to twenty-six weeks, weight is not related to prematurity.

Anemia is an additional stress. Births are premature for 5.4% of women with the highest hemoglobin and for 13.2% of the tenth with lowest values.

Plastic Drapes in Ophthalmic Surgery

T. S. GERSPACHER, M.D., H. D. FOWLER, JR., M.D., AND D. E. ROLF, M.D.

MANY of the difficulties encountered in draping the orbital region are eliminated by the use of plastic drapes.

The material is inert and nontoxic and, in contrast to linen or cotton, is nonadsorptive, forming an effective barrier against the passage of contaminating organisms from skin surfaces or of moisture and fluids, report T. S. Gerspacher, M.D., H. D. Fowler, Jr., M.D., and D. E. Rolf, M.D., of Glenville Hospital, Cleveland.

Use of the drapes, which are disposable, eliminates soiling of clothes and towels. The operative field is clearly demarcated and sealed off. The soft green color of the plastic prevents glare.

The drapes are strong enough to withstand almost any amount of handling, are light in weight, and can be removed without irritation. The drapes are available in sterile packages, ready for use.

New plastic surgical drapes. Arch. Ophth. 45:673-677, 1951.

Basic improvement of male potency depends upon deeper understanding of how our cultural pattern affects physiology of sex.

Sexual Function in Aging Men

WALTER R. STOKES, M.D.
George Washington University, Washington, D.C.

THE span of male sexual activity is being extended by scientific, social, and cultural advances.

Both potency and fertility may persist into old age. Apparently the adrenal cortex can supply castrated men with all the androgens necessary to maintain normal sex physiology.

Yet many men lose sexual potency while relatively young. Walter R. Stokes, M.D., concludes that much impotence in later years is the result of longstanding psychologic factors, above all of the limitations of our neurotic culture.

An ultimate solution will be found only through adjustments allowing a biologically sound, guiltless unfolding of sex life from earliest infancy. Treatment in middle or later years seldom restores function but may teach acceptance of the loss.

Information on sex behavior of the elderly is not only meager but unreliable. Data from relatively stable, emotionally mature subjects are inadequate. Several popular ideas are already in question, for instance, the belief that early or late adolescence is all a matter of hormones.[1]

Endocrine activity can be retarded or stimulated by emotion, as shown by research on the adrenals and the physiology of stress. Puberty may be influenced powerfully by social patterns impinging on a child's experience.

Sexual activity begun in early manhood and continued at frequent intervals is not necessarily responsible for impotence in later life. In fact, those who mature soonest start their sex life almost at the same time and maintain high capability for at least thirty-five or forty years.

Dysfunction is no more common in late than early decades. Indeed, so many young Americans are deficient that the fully potent are exceptional. Quick ejaculation is abnormal and often followed by total impotence in the late 30's, 40's, or early 50's.

For both young and older men, morning erections may continue in spite of impotence, possibly because failure is caused by severe unconscious anxiety over sex problems. Psychotherapy is sometimes corrective for young men.

Long after partial loss of potency, apparently normal spermatozoa are produced by old men. Function occasionally declines because of boredom or preoccupation with other interests but may revive with a new situation or a different partner.

The so-called change of life among men is probably unimportant and not affected by testosterone. Most

[1] Sexual function in the aging male. Geriatrics 6:304-308, 1951.

older patients with prostatic carcinoma continue sexual activities after removal of the testes; less than 5% have eunuchoid effects requiring testosterone therapy.

Sexual abnormalities of elderly offenders can generally be traced to early behavior. Aggressive sex interest in little girls and belligerent or depressive reactions to premature sex failure are manifestations of lifelong trends.

Duodenal Ulcer in Childhood

FAY K. ALEXANDER, M.D.

CHILDREN can and do have duodenal ulcers. Conservative estimates put the incidence at about 1.5%—frequent enough to warrant consideration in diagnosis of recurrent abdominal pain associated with nausea and vomiting.

In roentgenographic studies of the gastrointestinal tracts of 254 children, Fay K. Alexander, M.D., of Fitzgerald-Mercy Hospital, Darby, Pa., found 30 cases of duodenal ulcer. The patients were 2 to 14 years of age; 18 were boys.

Chief symptoms are abdominal pain, usually generalized but occasionally periumbilical or epigastric, nausea, and vomiting. Blood is sometimes seen in the vomitus and stool.

The adult patient's symptom complex of pain, food, relief is not apparent in children. The abdominal pain is often considered due to mesenteric adenitis, food allergy, or gastroenteritis from dietary indiscretion. Sometimes appendectomy is performed unnecessarily.

Nausea and vomiting are usually quite severe. During these attacks, anorexia usually causes weight loss and constipation. Vomiting is of the type associated with pyloric spasm, since symptoms subside once the stomach has been emptied. Laboratory findings are usually not helpful; physical examination only occasionally elicits abdominal tenderness.

The uncomplicated ulcer seen in children is a shallow mucous erosion which involves only the mucosa, rarely extending to the submucosa. Since the muscular and peritoneal coats are not included in the inflammation, pain is not localized but is a diffuse gastric distress. Spasm of the pylorus and duodenum, frequently seen fluoroscopically, indicates disturbance of the intestinal gradient which is responsible for nausea and vomiting.

Symptoms alone do not establish the diagnosis. A niche defect must be demonstrated by roentgenograms.

Duodenal ulcer in children. Radiology 56:799-812, 1951.

Present knowledge concerning the sources of poliomyelitis permits a rational approach to consideration of transmission.

Transmission of the Poliomyelitis Virus

ALBERT B. SABIN, M.D.
University of Cincinnati

THE main source of poliomyelitis is stool-borne virus from patients and healthy carriers, not droplets from the nose and mouth.

Organisms are transmitted by various methods, one or several of which may predominate under different circumstances. Albert B. Sabin, M.D., lists the following simple rules for protection during epidemics:

- Keep fingers out of the mouth, and wash the hands before eating.
- Keep flies away from all food, and thoroughly wash whatever is to be eaten uncooked, such as fruit and vegetables.
- Keep children under 16 years old out of crowded public wading and swimming pools.
- Avoid intimate association, including hand shaking, kissing, and use of common eating utensils or towels, with members of a family in which poliomyelitis has occurred within three weeks, even if the patient has been removed to the hospital.

Unwarranted are measures sometimes advised when poliomyelitis transmission was still considered respiratory: avoidance of crowds, large public gatherings, and sports events; exclusion of children from movies, churches, or schools; and ban of known or suspected patients from general hospital wards.

The alimentary tract is the only region of the body outside the central nervous system where virus is regularly found. During the first week of illness, organisms may be detected in the throat in a small proportion of cases.

However, virus is seldom recovered from the nose. Respiratory spray and naturally expectorated saliva do not ordinarily contaminate the outer environment.

Poliomyelitis virus can be obtained from feces in the first week after onset in 70 to 90% of instances. Even by the third and fourth weeks, stools may be a source of infection in 50% of frank, slight, and subclinical cases.

A limited series of infections in a family or small community may be started by a single source, not necessarily human. Most members of an involved family become ill about the same time, as if from the same food or drink.

Raw milk has been suspected in several minor outbreaks. The U.S. Army analyzed 4 possibly food-borne epidemics in this country and at least 1 in the Philippines. During World War II, rates of infection were much higher in areas where other enteric diseases were rife.

Water-borne epidemics of poliomyelitis are not reported and are probably prevented by the usual methods of purification. Virus has been found in creek water, however.

Transmission of poliomyelitis virus. J. Pediat. 39:519-531, 1951.

and drainage from privies may contaminate a water supply.

Oropharyngeal and anal washings endanger swimming pools. During widespread disease in Berlin, Germany, poliomyelitis developed in 18 of 150 children who played in a concrete wading pool, although only 9 were infected elsewhere in the same period.

Green-bottle and blow flies are attracted to both human feces and common foods. The virus is repeatedly discovered in flies during outbreaks of poliomyelitis. After artificial infection, the insects excrete organisms for as long as twenty-one days.

From 80 to 90% of cases in temperate zones occur in the fly season of late summer and early autumn. Chimpanzees become ill if given food exposed in epidemic areas.

By chance, more than half of Berlin was sprayed with DDT just before the 1947 outbreak. Within two months incidence was twice as high in the untreated Russian sector as in the rest of the city.

By the time an epidemic is recognized in a large community, however, so many healthy carriers are involved that dissemination cannot be stopped by any single method. Wholesale emergency destruction of filth flies and total isolation of patients are scarcely worth while.

Yet elementary rules of hygiene may be adopted without fear that natural immunization will be delayed to a less favorable age. In the years between epidemics subclinical infection continues, and strains of greater virulence are probably circulating when disease is widespread.

Desoxycorticosterone for Malnourished Infants

JOHN A. BIGLER, M.D., AND HOWARD S. TRAISMAN, M.D.

AS a rule, babies who are dehydrated and starved by vomiting or diarrhea do well under the standard regimen, but some are still unable to gain.

A short course of desoxycorticosterone acetate and salt may reverse the downward trend when parenteral fluids, plasma, blood, and antibiotics are ineffectual. Remarkable improvement was observed in 9 of 10 cases at Children's Memorial Hospital, Chicago. Infants were a few weeks to a year old, and all but 1 were under 6 months.

John A. Bigler, M.D., and Howard S. Traisman, M.D., prescribe DCA in daily doses of 1.25 to 5 mg. and give 1 or 2 gm. of sodium chloride per day, usually the former. The amount of DCA most often given is 2.5 mg. Courses vary from three days to two weeks or more. If advisable, medication is administered daily for a week or two, then tapered off for two weeks with three and two weekly doses. Edema should be watched for.

Use of desoxycorticosterone acetate in dehydration and malnutrition in infancy. Am. J. Dis. Child. 82:548-554, 1951.

Neurovascular stabilization may salvage and maintain a significant segment of imperiled inner ear function.

Treatment of Inner Ear Disorders

JEROME A. HILGER, M.D., AND NEILL F. GOLTZ, M.D.
University of Minnesota, Minneapolis

VERTIGO, tinnitus, and deafness are frequently caused by unrecognized spasm of the labyrinthine artery and resultant ischemia. Lasting damage may be prevented by prompt treatment.

Jerome A. Hilger, M.D., and Neill F. Goltz, M.D., advise three types of therapy. Physical or emotional factors instigating neurovascular dysfunction should be removed, neurovascular tone balanced by blocking agents or smooth muscle dilators, and tissue restored by vitamins B and C. Hormones may be useful in treatment.

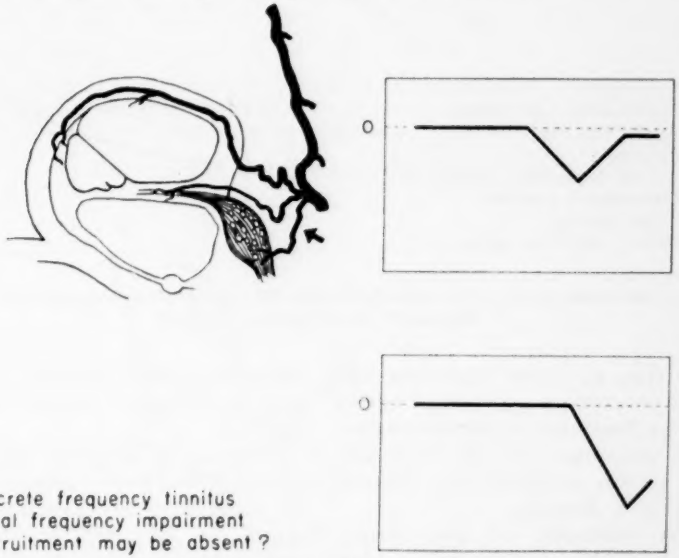
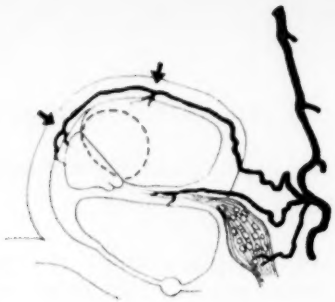


Fig. 1. Ischemia of the cochlear ganglion cells

Primary ischemia of the cochlear ganglion cells causes specific frequency tinnitus and zonal hearing loss (Fig. 1). The final result is so-called eighth nerve neuritis.

Cochlear ischemia in the stria vascularis may produce endolymphatic or perilymphatic hypertension or

Some aspects of inner ear therapy. Laryngoscope 61:695-717, 1951.



Distortion
Accentuated high tones
Aural pressure
Diplacusis
Diffuse frequency tinnitus
Recruitment present
Initial vertigo
Caloric response good

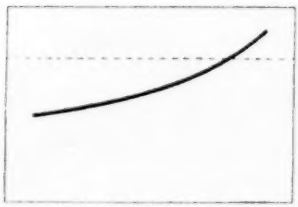


Fig. 2. Ischemia in the stria vascularis with formation of endolymphatic or perilymphatic hypertension or both

both (Fig. 2). Tonal distortion and aural pressure are experienced before hearing loss; onset of vertigo is common; and tinnitus may develop. Sudden vertigo is sometimes followed by gain in hearing.

The syndrome has been termed Ménière's disease, labyrinthosis, endolymphatic hydrops with vertigo or, if hypertension is not transmitted through the utricular valve, endolymphatic hydrops without vertigo.

When the macula or ampullary crest is concerned, effects depend on a specific neuroepithelial plaque (Fig. 3). For weeks or months after onset, dizziness is initiated by movement in the plane of that end plate. Without cochlear disorder, the term pseudo Ménière's disease has been applied.

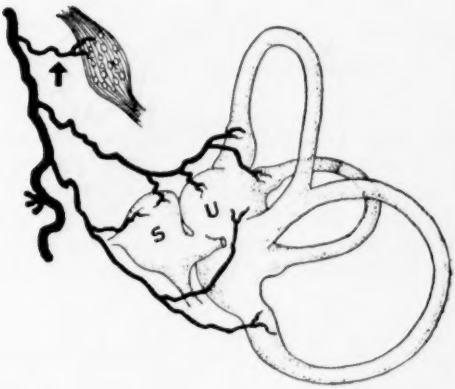
Ischemia of ganglion cells along the vestibular nerve induces vertigo in many and any planes (Fig. 4). Until the labyrinth is widely involved, lesions cannot be distinguished from central nuclear change.

General syndromes are more common than segmental types. Cochlear ischemia may occur with or without vertigo, according to whether endolymphatic hypertension is transmitted (Fig. 5).

Total labyrinthine ischemia results in profound impairment of hearing, persistent vertigo in all planes with

Vertigo (persistent with movement in the affected plane)
Caloric response impaired (if end-plate damage is severe and test is discriminative)

Fig. 3. Ischemia in macula or ampullary crest



Vertigo (not confined to a discrete plane of movement. Often persistent without movement)
Caloric response impaired (if neural damage is sufficient)

Fig. 4. Ischemia in vestibular ganglion cells

or without movement, and if nerves are permanently injured, impaired caloric response (Fig. 6).

Treatment of vascular spasm may include removal of such factors as emotional disturbances, fatigue, infection, or excessive indulgence in tobacco, coffee, or alcohol.

Among many blocking agents a useful stopgap is intravenous hyoscine hydrobromide, 0.3 mg., diluted and injected slowly.

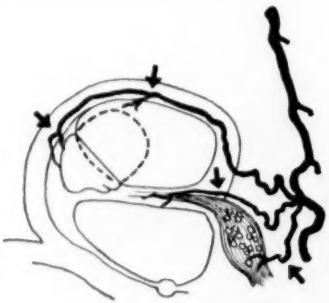
Prolonged intravenous infusion of 0.2% procaine hydrochloride in 5 or 10% glucose is given in a trial dose of 4 mg. per kilogram at 30 drops per minute. Blockade is maintained for one and a half to two hours once or twice daily.

To stabilize teetering neurovascular balance after a crisis, 2 mg. of artane is taken orally three or four times a day or, if desired, benadryl or Dramamine, for weeks or months.

Smooth muscle dilators in an emergency are intravenous papaverine and sodium nitrite. For prolonged infusion, nicotinic acid is added to procaine, 50 mg. in 250 cc. with or without 0.025 mg. of adrenaline. Oral nicotinic acid or Toniacol is employed four to six times daily.

Ascorbic acid is routinely given with procaine solution, 1 mg. per cubic centimeter. Oral maintenance dosage is 250 mg. to 1 gm. daily with vitamin B complex.

Replacement of slight thyroid defi-



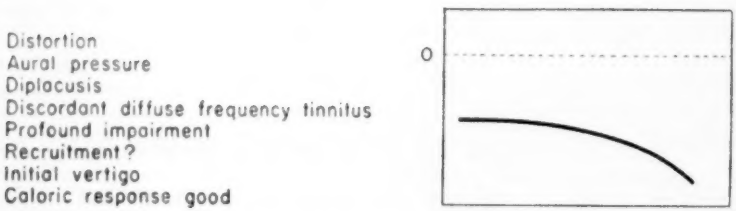


Fig. 5. Total cochlear ischemia

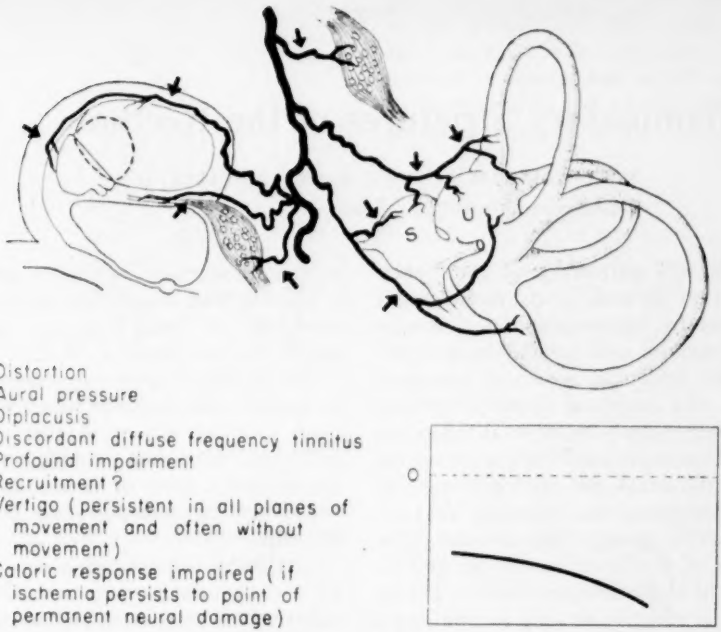


Fig. 6. Total labyrinthine ischemia

ciency may be necessary in some cases.

If recurrent labyrinthine ischemia is related to the climacteric, men may be helped by 5 to 10 mg. of methyl testosterone daily and women by 0.1 to 2 mg. of diethylstilbestrol. If vasomotor aural symptoms are aggravated in the last two weeks of the menstrual cycle, relief may be obtained by 10 mg. of methyl testosterone daily for the last half of one or two consecutive cycles.

¶ INFECTED PILONIDAL CYSTS heal sooner if cleansed by streptokinase and streptodornase before excision. The abscess is incised and drained, and the enzymes are applied locally. After the surgical procedure, Maj. Joseph M. Miller, M.C., U.S.A.R., and associates of the Veterans Administration Hospital, Fort Howard, Md., insert ureteral catheters or polyethylene tubing laterally to deep fascia over the coccyx for lysis of clotted blood and withdraw the products of debridement by air-vent suction. The average hospital stay is shortened about twelve days.

U. S. A. F. M. J. 2:1423-1429, 1951.

Sphincter-saving abdominoperineal resection may be successfully employed for lesions caused by lymphogranuloma venereum.

Inflammatory Strictures of the Rectum

BEN EISEMAN, M.D., AND C. BARBER MUELLER, M.D.
Washington University, St. Louis

FIBROUS narrowing of the lumen of the rectum and rectosigmoid caused by lymphogranuloma venereum may be well treated by excision of the strictured area and transposition of a length of ileum to connect the left colon with the anal sphincter.

Chloramphenicol and aureomycin directly attack the etiologic agent of lymphogranuloma venereum but have no effect on the firm fibrous adhesions of the lower bowel—the end result of the untreated disease. Dilatation is effective as long as treatments are continued but is not definitive nor applicable to severe strictures. Vigorous dilatation with anesthesia achieves only mediocre results and may be attended by serious complications.

The obvious way to deal with an uncontrolled inflammation or stricture of the rectum is by colostomy. The inflamed area is put to rest, but the diseased bowel remains, sometimes bleeding and often causing abscesses, fistulas, and unpleasant discharge. Carcinoma may occasionally develop.

Abdominoperineal resection removes the diseased segment but necessitates a colostomy. Since the anal sphincter is often uninvolved and wide dissection around the perianal area is unnecessary, sphincter saving is feasible and colostomy avoidable, according to Ben Eiseman, M.D., and C. Barber Mueller, M.D.

The strictured area can sometimes be excised and the large bowel mobilized to reach down to the intact sphincter, but when mobilization is insufficient, a loop of ileum may be swung on its mesentery to bridge the gap.

The following operation was done for a 53-year-old woman. Several procedures had been attempted to bring relief from rectal strictures resulting from lymphogranuloma venereum. The patient had had dilatations twenty-five years before and a colostomy for fifteen years.

Working from within the abdomen, dissection was carried close to the colon wall down to the levator muscles. The terminal ileum was transected at two points about 25 cm. apart, thus forming an isolated mobile segment (Fig. 1).

The terminal portion is the lowest lying segment of small bowel and presents the least difficulty in mobilization for the pull-through procedure.

An end-to-end anastomosis was made between the cut ends of the ileum, and the rent in the mesentery

A new operative approach to inflammatory strictures of the rectum and rectosigmoid. Surgery 30:448-455, 1951.

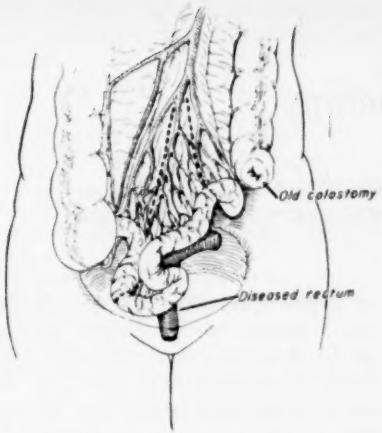


Fig. 1. Site for operative mobilization

was closed. The freed segment of ileum was swung on its mesentery, the blood supply being carefully preserved.

In the lithotomy position, the mucosa was incised circularly at the anorectal junction, and the dissection was carried through all layers of the rectum. Outside the rectum, dissection proceeded superiorly until communication was established with the dissection from above. The rectum and rectosigmoid were then pulled through the sphincter and removed.

The distal end of the ileal segment was threaded down into the pelvis through the hole in the peritoneum to the levator muscles, and was grasped from below and brought out through the sphincter. The ileal mucosa was sutured to the perineal skin, and the levator muscles and the peritoneum were approximated to the ileum transplant.

The proximal segment of the transplant ileum was brought out through the abdominal incision just adjacent to the colostomy. A few weeks later the last stage was done. An intraperitoneal anastomosis of the colon to the proximal end of the ileal segment was made (Fig. 2).

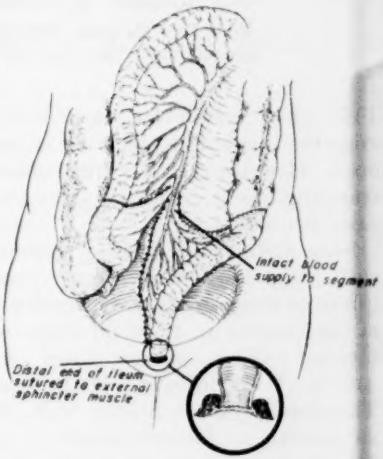


Fig. 2. Completed operation

Aureomycin was given for two days before surgery and continued for six days postoperatively. Feces began to pass the transposed ileum about the fourth postoperative day, and within a week the stools were formed, the first time in fifteen years. Sphincter control was good. Barium enema two weeks after the final operation showed normal small bowel pattern up to the anastomosis with the descending colon.

The procedure may also be applicable to other benign lesions of the rectum or rectosigmoid when colostomy is inevitable or may be used to bridge gaps in other parts of the large bowel.

Right diagnosis, good choice of drugs, and boldness in treatment are essentials in the management of migraine.

Failures in Migraine Therapy

ARNOLD P. FRIEDMAN, M.D.,
AND THEODORE J. C. VON STORCH, M.D.
Montefiore Hospital, New York City, and Veterans Administration, Brooklyn and New York City

THE chief reason for unsuccessful migraine therapy is incorrect diagnosis. Headache closely resembling true migraine is caused by many diseases (see table).

Some failures in treating patients with migraine result from poor choice of drugs or a natural tendency of the patient to resist all types of therapy. Other causes listed by Arnold P. Friedman, M.D., and Theodore J. C. von Storch, M.D., in an analysis of failures occurring in 600 unselected cases, are inadequate dosage, wrong method of administration, inflexible therapeutic regimen, unnoticed complicating factors, and overoptimism.

Confidence in an enthusiastic physician has advantages but sometimes results in transient success that cannot be duplicated. The power of suggestion should never be forgotten.

The patient's personality as well as physical condition should be determined and intensive psychotherapy given. A detailed case record is invaluable in making diagnosis; laboratory investigation is less helpful.

About 85% of migraine patients are relieved by vasoconstrictors, especially ergot derivatives. However, common drugs for migraine are useless in a few cases (Fig. 1); 5% of patients cannot tolerate ergot because of side reactions or contraindications such as hypertension and 5% do better with vasodilators. The remaining 5% are naturally refractory.

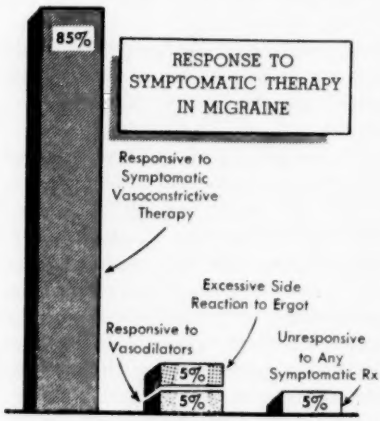


Figure 1

Timid methods have no place in the treatment of true migraine. Ergot compounds are often started too late in the attack, or initial doses are too small. More medication is needed when the episode is fullblown.

Oral administration of ergot and caffeine is generally effective but may cause nausea and vomiting. If reac-

Failures in migraine therapy. Neurology 1:438-443, 1951.

tions develop, rectal suppositories are more desirable than hypodermic injections.

In each case, attacks vary from time to time with the impact of environmental and inner factors, particularly emotional stress. Dosage and route of therapy must be changed accordingly.

Obscure complications often account for disappointing results of treatment. After the vascular disturbance subsides, muscle spasm in the neck and scalp may continue. In other instances, continually dilated cranial vessels are structurally altered and no longer affected by vasoconstrictors. Persistent symptoms may be relieved by hot or cold applications, change of posture, analgesics, sedatives, or combined remedies.

Prophylaxis is less often successful than treatment of actual attacks. Since etiology varies, individual needs

CONDITIONS CAUSING HEADACHE WHICH MAY BE CONFUSED WITH MIGRAINE

TUMOR
- *Neoplasm:* Especially lateral ventricle and ball valve
- *Aneurysm:* Usually causing persistent ocular signs
- *Hematoma:* Especially subdural in older people

TRAUMA
- *Posttraumatic encephalopathy with objective evidence*
- *Posttraumatic psychogenic headache*
- *Scalp scars or other injury*

INFLAMMATION
- *Sinusitis:* Frontal, ethmoidal, or sphenoidal
  Sluder's vacuum type
  Temporal arteritis

ENDOCRINE DISORDER
- *Gonadal:* Menstrual or menopausal
- *Hypothyroid*

SYSTEMIC DISORDER
- *Arterial hypertension*
- *Anemia*

SPECIFIC DISORDER
- *Ocular:* Glaucoma
  Astigmatism
  Convergence insufficiency
- *Cervical:* Myalgia, arthritis, disk, dislocation, or tumor
- *Histamine:* Horton's histamine headache

NEURALGIA
- *Craniofacial:* Occipital, temporal, or trigeminal
  Ciliary, sphenopalatine, or glossopharyngeal
  Atypical facial migraine

MUSCLE TENSION
- *Cervical:* From inflammation, trauma, etc.
- *Scalp:* From inflammation, trauma, etc.

EMOTIONAL DISORDER
- *Physiologic:* Tensional (muscle) or vascular (dilation) caused by pain or anxiety or both
- *Psychogenic:* Conversion
  Symbolic

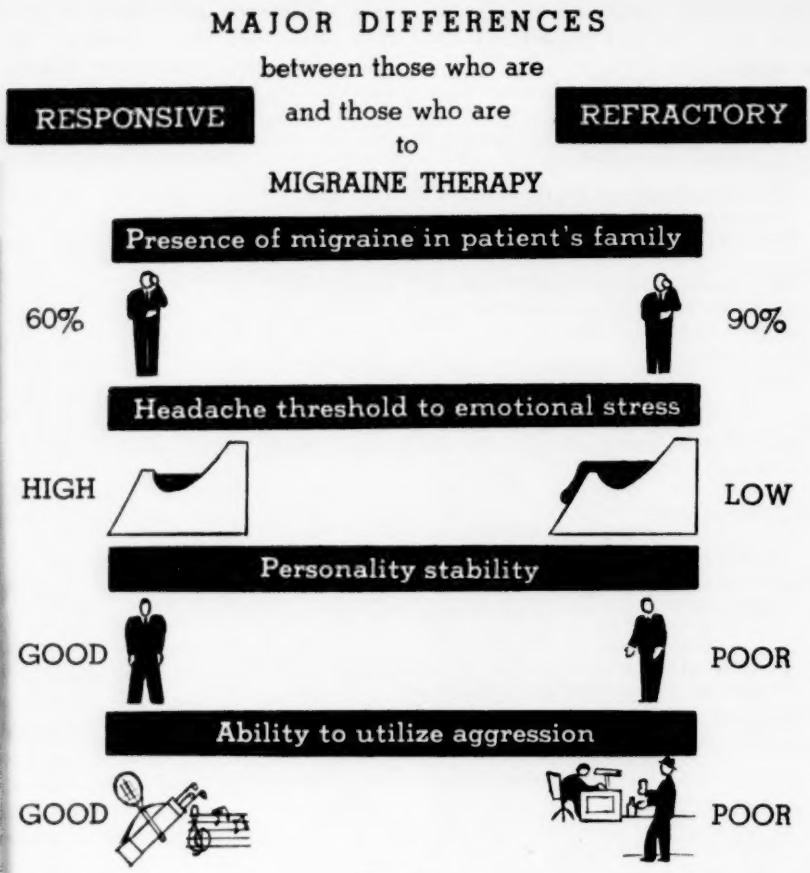


Figure 2

should be emphasized rather than a special point of view. Some conditions are managed at a cortical level, others by autonomic or humoral technics.

The most telling preventive technic is informal psychotherapy. Every effort should be made to understand hidden drives, release tensions, and establish a stable pattern of life.

At best, about 35% of patients are refractory to all preventive measures. Amenable and resistant groups may be differentiated in several ways (Fig. 2).

In general, incurable subjects are extremely sensitive to emotional stimuli. These patients are unable to find suitable outlets for aggressive impulses.

In many depression states, electroshock approaches the value of a specific when patients are carefully selected.

Therapeutic Efficacy of Electrocoma

JOSEPH L. FETTERMAN, M.D., VICTOR M. VICTOROFF, M.D., AND JACK B. HORROCKS, M.D.
Fetterman Clinic, Cleveland

THE immediate results of therapy by electrocoma (electroshock) are generally excellent.

Relief from symptoms is obtained in many psychoses and depressed patients frequently recover. Recurrences are common, but are not accelerated or retarded by the treatment. The method has proved of value in preventing suicides and has helped countless patients and their families.

With expert handling and careful selection of patients, Joseph L. Fetterman, M.D., Victor M. Victoroff, M.D., and Jack B. Horrocks, M.D., consider that electrocoma therapy approaches the value of a specific in states of depression, including the depressed phase of manic-depressive psychoses, the involutional melancholias, and schizophrenia.

Such treatment is valuable as a symptomatic measure in schizophrenia and in controlling the behavior of difficult patients even with organic psychoses. Therapeutic value has also been demonstrated for elderly patients, some of whom are thought to have senile deterioration.

Electrocoma is not an isolated, independent procedure to be used to the exclusion of other therapy and should not be administered until a complete study has been made and less drastic therapeutic measures employed, except in emergency cases. Moreover, electrocoma should be combined with medicinal agents, physical procedures, and psychotherapy.

A ten-year survey was made of 100 psychotic patients treated in private sanitariums, who were 17 to 70 years of age. Of the manic-depressives, 50 were in a depressed state, and 3 in a manic. The rest of the patients were 4 schizo-depressives, 11 involutional melancholics, 29 schizophrenics, and 3 of other types.

Depression was the cardinal difficulty for 65 of the patients. Of these, 45 were relatively well, 16 moderately or slightly improved, and 4 unchanged or worse up to the time of the last observation. Of the depressed patients, 32 had recurrences requiring further courses of electrocoma. After subsequent therapy, 18 of these patients were relatively well and the condition of 14 was fair or poor.

Immediate complications were few and relatively insignificant compared to the benefits obtained. The patients had the usual back, muscle, and joint complications. The ten-year study revealed no cumulative complications. Epilepsy, spinal de-

A ten-year follow-up study of electrocoma therapy. Am. J. Psychiat. 108:246-270, 1951.

formities, persistent back pain, neurologic complication, and mental deterioration from treatment were not encountered. The deaths of the 9 patients who succumbed during the period of the survey were unrelated to the treatment.

Ambulatory electrocoma treatment, properly administered by a competent psychiatrist with critical selection of patients, saves time, money, prestige, and suffering and enables a smoother integration of electrocoma therapy with other treatments. Present methods make administration possible in a relatively safe, comfortable manner, without the psychologic atmosphere of shock.

Temporary Pylon for the Amputee

LESLIE BLAU, M.D., JOSEPH J. PHILLIPS,
AND DONALD L. ROSE, M.D.

UNTIL a stump is ready for the final prosthesis a lightweight peg leg saves time, trouble, and expense. The amputee can learn a natural gait and return to gainful work before tissues stop shrinking, sooner than would be possible with crutches.

The bucket is easily replaced. Celastic, a durable synthetic material, is satisfactory for construction, find Leslie Blau, M.D., Joseph J. Phillips, and Donald L. Rose, M.D., of the University of Kansas, Kansas City, and the Veterans Administration Center, Wadsworth, Kan.

A plaster of paris mold is made of the stump. Horsehide is drawn over the mold, smooth side in, and fastened with brads, leaving a 2-in. margin at the top.

The synthetic plastic is cut into 3-in. strips as long as the mold, dipped into solvent, and applied to form a laminated bucket. The heavier the wearer, the greater the number of layers. At the ischial bearing point, two extra layers are added for a seat.

The bucket is allowed to dry at least six hours, then removed from the mold. Brads are extracted, and the horsehide overlap is glued and tacked down over the top.

Strap iron braces, 18 by 1 by $\frac{1}{8}$ in., are drilled, and two are riveted to the outside of each bucket and to the wooden peg. The average weight of a pylon for the thigh is 4 lb., and for the lower leg, 3 lb.

A painter equipped with the temporary support was able to climb ladders and work on scaffolding. Even a man who had lost two legs and a hand could balance and walk on two pylons with the help of canes.

Value of the pylon in pre-prosthetic management of the lower extremity amputee. Arch. Phys. Med. 32:585-589, 1951.

Anterior and posterior packing of the nasal cavity is indicated to control delayed bleeding after rhinoplasty.

Postoperative Nasal Hemorrhage

D. MC CULLAGH MAYER, M.D., AND WILSON A. SWANKER, M.D.
New York Medical College, New York City

BLEEDING following rhinoplastic surgery is usually best controlled by use of nasal packing.

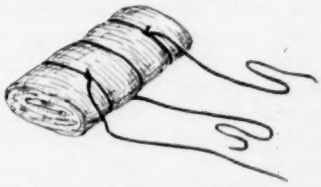


Fig. 1. Pack with three strings

Although the major blood supply of the nose stems from the external carotid artery, the internal recesses of the nose receive many branches from the internal carotid artery. Several anastomoses occur in the nasal region between branches of the two main sources of supply. This large blood supply makes infection rare.

The possibility of hemorrhage is pronounced after any intranasal surgery and, because of the sources, ligation of the external carotid artery alone is not adequate to control profuse postoperative bleeding, state D. McCullagh Mayer, M.D., and Wilson A. Swanker, M.D. The internal carotid artery cannot be ligated without producing cerebral effects.

Primary nasal hemorrhage at the time of the operation can usually be stopped at the moment. Secondary bleeding appearing a day to two after surgery is ordinarily terminated by anterior repacking, application of ice to the nose, with or without the administration of coagulants. Bleeding some days later, after the packing has been removed, is much more difficult to stop.

Before any rhinoplastic work is started, the patient must be carefully questioned about occurrences of nasal trauma, previous surgery on the nose, the amount of bleeding from any recent injury, and, if the patient is a woman, the amount of bleeding during menses, since bleeding is more profuse at that period. Routine laboratory tests, including the bleeding and coagulation

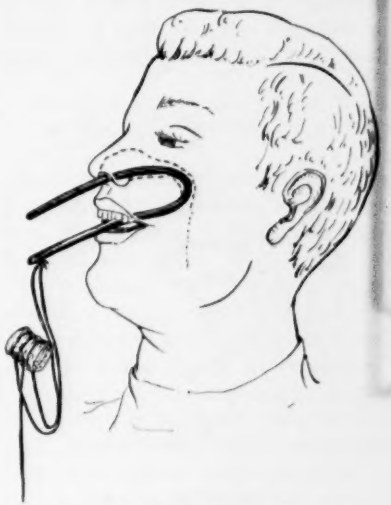


Fig. 2. Pack tied to catheter

Postoperative nasal bleeding. Arch. Otolaryng. 54:384-389, 1951.

times, are made. If necessary, coagulants may be given both pre- and postoperatively.

During the operation, bleeding can be decreased by epinephrine in the anesthetic solution and by packing the side not involved in the immediate procedure with strips soaked in epinephrine solution. To avoid the arteries of the nose, which contract rapidly when severed, care is taken to keep close to the bone subperiosteally when elevating the soft tissues. The nasal cavity is carefully packed with dry gauze after surgery.

When profuse hemorrhage occurs six to eight days after surgery, the patient should be returned to the hospital and transfusions started immediately. The head of the bed is elevated at about a 20° angle. Before packing, all clots are removed in an attempt to visualize the bleeding point. If cautery cannot be used on the vessel, absorbable gelatin sponge or oxidized cellulose may be placed over the area and packed in place with the strip packing. If the hemorrhage follows rhinoplasty, both nasal fossae are packed anteriorly.

Delayed postoperative epistaxis requires both anterior and posterior packing. The posterior nasal pack should have three strings attached (Fig. 1). The pack is made of folded gauze. Iodoform gauze is antiseptic and can be left in place longer.

Two of the strings are tied to a soft rubber catheter, which has been passed through the nasal fossa into the mouth (Fig. 2). By digital palpation, the pack is placed well up in the nasopharynx against the choanae as the catheter is withdrawn. The strings are held taut anteriorly while dry ½-in. gauze strips are packed well back against the posterior pack and slowly forward until the entire nasal fossa is full (Fig. 3). The two strings are tied over a small gauze roll at the anterior nares to hold the pack in place. The string from the mouth is anchored to the cheek with a small piece of adhesive tape.

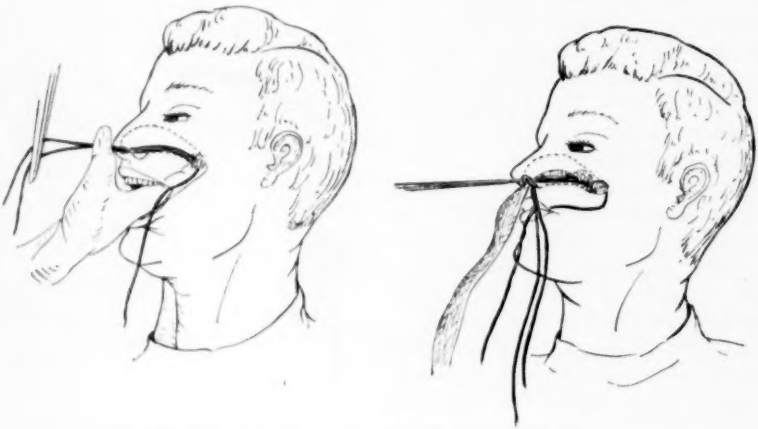


Fig. 3. Insertion by palpation and packing of fossa

Use of new drugs in treatment of compound fractures has improved results but has not altered methods greatly.

Antibiotics and Compound Fractures

J. ALBERT KEY, M.D.
Washington University, St. Louis

WITH the protection afforded by antibiotics, compound fracture closure may frequently be done early and internal fixation employed more freely.

Thus, by immediate closure or primary delayed suture, and in other cases by application of split-skin grafts, prompt healing of the wound is often achieved and chronically infected, draining lesions are less common than in the past.

Antibiotic therapy is usually not necessary at the site of the accident, but if hospitalization must be delayed, should be started when the patient is first seen. However, if possible, cultures of the wound are obtained before antibiotics are given, since most compound fractures are contaminated.

Therapy may be begun with a single dose of penicillin. A mixture containing 100,000 units of crystalline penicillin and 300,000 units of procaine penicillin is employed by J. Albert Key, M.D. This dose may be repeated daily or increased if indicated.

When risk of infection is unusual the dose may be doubled or 100,000 units of soluble penicillin may be given intramuscularly every two or three hours for the first few days.

If bacteriologic studies reveal penicillin-resistant organisms, aureomycin, terramycin, streptomycin, or chloramphenicol should be used, depending upon the pathogen involved. In most cases penicillin is sufficient.

For recent fractures, a conservative debridement is performed. The margins and contaminated surfaces of the wound are excised and foreign material removed. Material for culture is obtained.

The depths of the wound are then inspected and gently irrigated with isotonic saline. Devitalized muscle should be removed; otherwise, a wound infection almost always develops, despite antibiotics. If soft tissue damage and soilage are slight, the wound may be closed by primary suture.

Internal fixation offers the advantage of a more complete immobilization of the fragments but should be used discriminately.

If extensive debridement is required, a drain is left in place at least forty-eight hours. Use of through-and-through drains should be avoided.

Extensive debridement should not be done for fractures over twenty-four hours old unless antibiotics have been given since the time of injury. Such unprotected old wounds are washed thoroughly, cleaned of

Treatment of compound fractures in this antibiotic age. J.A.M.A. 146:1091-1096, 1951.

foreign bodies, and packed loosely with petrolatum gauze. A pressure dressing is then applied, with care to preserve adequate circulation distal to the wound.

Four to ten days after the operative procedure, open wounds may be closed by primary delayed suture if the wound appears uninfected. Simple interrupted sutures are used to draw the skin together. If necessary, sliding skin flaps or split-skin grafts may be used.

If indicated for the restoration of nerves or tendons, plastic procedures may be performed early. Any latent infection may be controlled with antibiotics.

Postoperative care is similar to that for simple fracture of the same type.

Recurrent Partial Dislocation of the Ankle

MACK L. CLAYTON, M.D., ARTHUR W. TROTT, M.D., AND ROBERT ULIN, M.D.

PERONEAL nerve block, which facilitates roentgenography of the ankle in complete inversion, is advantageous for accurate diagnosis in recurring subluxation.

Many a supposed sprained ankle is, in reality, a partial dislocation of the talus resulting from a complete tear of the lateral ligaments. Unless the condition is treated by immobilization in plaster, recurrent subluxation will result. Although, in pronounced cases, a sulcus is palpable between the talus and the fibula on inversion, the majority must be diagnosed from the history and from roentgenograms of the completely inverted foot, state Mack L. Clayton, M.D., of Massachusetts General Hospital, Arthur W. Trott, M.D., of Harvard University, and Robert Ulin, M.D., of Tufts College, Boston.

To relax the peroneal muscles and leave only the lateral ligaments holding the talus in position, 5 to 10 cc. of 2% procaine is injected around the peroneal nerve where the nerve is felt passing beneath the head of the fibula. Peroneal paralysis follows, and painless, unresisted inversion of the ankle is possible. The surgeon should hold the foot in inversion and assure correct positioning during roentgenography.

Local injection of procaine around the ligaments may not completely overcome the element of peroneal spasm.

Use of the proximal end of the peroneus brevis tendon to reconstruct new ligaments, by the method of Watson-Jones, gives uniformly good outcome. A stable ankle results, with a full range of ankle motion, actively and passively.

Recurrent subluxation of the ankle. J. Bone & Joint Surg. 33-A:502-504, 1951.

Synovial tissue pinched between facets of the lumbar vertebrae may cause a "catch" and pain in the lower back.

Etiology of Lumbar Vertebral Derangement

GEORGE L. KRAFT, M.D., AND DANIEL H. LEVINTHAL, M.D.
St. Joseph's Hospital, Burbank, and St. John's Hospital, Santa Monica, California

FACET synovial impingement frequently diagnosed as muscular or ligamentous strain or tear, myofasciitis, and myositis and erroneously referred to as sacroiliac strain, may cause lumbar vertebral derangement.

George L. Kraft, M.D., and Daniel H. Levinthal, M.D., describe the onset of this acute low back condition as follows: The patient, after bending forward to pick up an object, usually with a twisting or rotary flexion movement, tries to straighten up. A sudden severe catch and excruciating pain occur in the lower back.

The pain is usually in the left lumbosacral area, probably because most persons are right handed and the mechanical etiologic factor is exaggerated on the side opposite that toward which the individual bends. The pain may be slight at first but progressively worsens within twenty-four to forty-eight hours. The patient is unable to extend the lumbar spine fully and the lumbar curve is reversed, causing a rounded lumbar kyphosis and a list of the torso.

Articular facets deviate considerably in position and contour and lie in any of several planes between sagittal and coronal. The gliding motion between facets in a coronal plane is greater than between those in a sagittal, so that the capsules surrounding these joints have a greater amount of free play. Synovial tissues lining the capsules also have more redundancy.

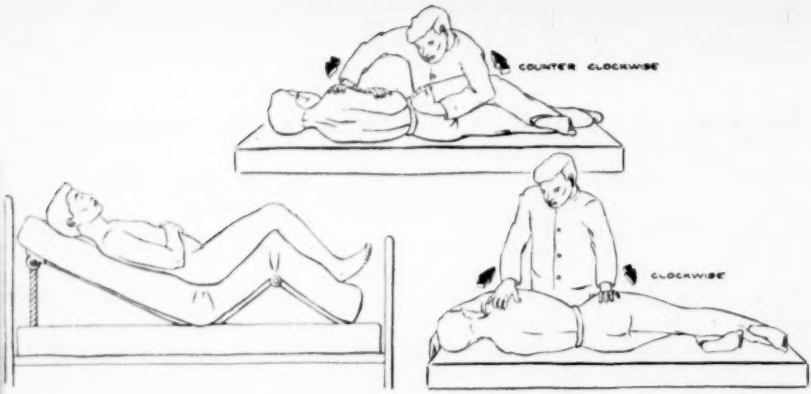
Thus, with flexion and some rotation of this type of anatomic variant, the joint space of the facet is open enough to allow the redundant synovial tissue to fill the space. Then, with attempted extension, the synovial tissue becomes pinched, producing the syndrome described above. Since the greatest motion occurs between the fourth and fifth lumbar vertebrae, this is the site of predilection.

The synovial tissue becomes edematous and inflamed, and the capsule is distended with fluid. The dull ache probably is caused by the distended capsule and the sharp pains by repeated impingements of the synovia.

By a reflex mechanism the local inflammatory response may also involve contiguous structures, particularly the posterior annulus fibrosus. The structures weaken until the posterior annulus fibrosus gives way and the degenerated disk herniates.

Based on the mechanical factors involved, treatment necessitates freeing the pinched synovia and prevent-

Facet synovial impingement: a new concept in the etiology of lumbar vertebral derangement. Surg., Gynec. & Obst. 93:439-443, 1951.



ing recurrence. In the acute stage the involved facet is located by point tenderness. Novocain is injected in and about this area.

With the patient lying on the right side, the back is manipulated by rotation of the pelvis in a clockwise direction and the thorax in the opposite direction (see illustration). The procedure is then reversed so that the pelvis is rotated counterclockwise and the thorax clockwise. Manipulation is repeated with the patient lying on the left side.

If novocain can be injected within the capsule and into the joint of the facets, the increased pressure may be sufficient to free the impinged tissue. The purpose of manipulation is to reverse the etiologic mechanism and open the facets sufficiently to permit retraction of the synovia. Since impingement of the synovial tissue occurs as the spine is extending, the patient feels relief in a position of flexion.

The patient should stay in bed for a week with pillows under both knees and with the head of the bed slightly raised. Heat is applied and gentle massage is given.

After approximately one week, the patient may be fitted with a Williams type of brace or corset or a flexion plaster-of-paris jacket, to maintain flexion of the spine. This is worn two to four months, while exercises are given to develop torso muscles.

¶ **PYOGENIC SKIN INFECTION** may cause acute glomerulonephritis. J. Lamar Callaway, M.D., and Harry B. O'Rear, M.D., of Duke University and Duke Hospital, Augusta, Ga., found that 36 of 73 nephritic children with no record of an upper respiratory or other precipitating factor had had a preceding dermatitis. Skin lesions had persisted seven to forty-five days, with an average of twenty-three days, before onset of the renal condition, usually without therapy. *Arch. Dermat. & Syph. 64:159-163, 1951.*

Shape of the fingernails is a doubtful aid to diagnosis, probably being a hereditary phenomenon in most cases.

Anomalies of the Nail

F. RONCHESE, M.D.
Boston University, Boston

SIGNIFICANCE of nail shapes in the diagnosis of any particular disorder is uncertain or nonexistent.

The nail accompanying the short, wide racket thumb, formerly thought to be a minor sign of congenital syphilis, is probably only a hereditary phenomenon. Among 63 persons with *racket thumbnails*, F. Ronchese, M.D., found only 1 with hereditary syphilis. Nearly half the others had familial incidence of the anomaly.

The racket nail is uncommon, but not rare, and apparently unrelated to any internal or external pathologic condition. Either one or both thumbnails may be involved, and more than twice as many women as men are affected. Short and wide big toes or toenails have not been observed.

A deep single *longitudinal groove* may appear in the midline or lateral side of a nail. Trauma can be the primary factor, but the condition may be an accentuated form of the common longitudinal furrow and is sometimes hereditary.

Longitudinal fissuring probably belongs to the same group. Isolated, nontraumatic fissures of the finger tips in nonlaboring persons, the obscure manifestations of a local skin defect, are analogous. Transverse ridges or depressions never produce fissures comparable to the longitudinal ones, but the congenital separation of the free edge of the nail in thin layers is a form of transverse fissuring in depth.

Longitudinal furrows of the nail are usually represented by slightly raised, continuous or interrupted, straight parallel longitudinal lines. Histologically, the ridges correspond to projections of the nail bed of the fingers or toes and are probably only a sign of senility, being very common after middle age. Dryness may be a cause of longitudinal ridging in roentgen radiation sequelae.

Transverse furrows (Beau's lines) are common nail anomalies, the result of some unknown action on the matrix. Trauma from work or from manicuring, picking, or biting seems to be a predisposing factor. The nail matrix may have a hereditary predisposition to react to stimuli by formation of waves or canals or ridges, while the same stimuli does not affect the matrix of nonpredisposed persons.

The importance of transverse furrows as an early sign of cardiac infarction, intermittent claudication, and trichinosis is based on isolated instances, and no generalization can be drawn. However, subungual hemorrhages are widely accepted as a

Peculiar nail anomalies. Arch. Dermat. & Syph. 63:565-580, 1951.

valuable sign in subacute bacterial endocarditis.

Transverse white bands of about 3 mm. in width (Mees's lines) have been noted on the nails after overingestion of arsenic, but similar bands have also been reported in an occasional case of malaria, cardiac infarction, psoriasis, and Hodgkin's disease. Apparently the bands are not an important diagnostic aid.

Clubbing of the fingers is the most investigated nail and finger tip anomaly and is undoubtedly of some value as an indication in disorders of the respiratory and cardiac apparatus. However, the condition also may be a hereditary phenomenon.

Surgery for Bladder Calculus

FRANCIS PATTON TWINEM, M.D.,
AND BENJAMIN BRUCE LANGDON, M.D.

CHOICE of the best operation for vesical stones depends on many factors but, in the hands of the experienced operator, litholapaxy will yield results equal to, or surpassing, the open operation.

Litholapaxy permits rapid recovery and a lower mortality rate than suprapubic lithotomy, state Francis Patton Twinem, M.D., and Benjamin Bruce Langdon, M.D., of Cornell University and New York Hospital, New York City. Among 369 cases, the mortality rate with the open operation was 10 times that with the closed type, and nonfatal complications were more frequent.

Experimentally, the compression strength of bladder stones varies as the diameter raised to an exponent between 1 and 2 depending upon the composition and hardness of the stone. With very hard stones, compression strength probably varies approximately as the square of the diameter; with softer stones, the variation would be more nearly a direct proportion. Most calculi have a phosphatic content and may weigh up to 500 gm.

The visualizing lithotrite is generally suitable for small stones and is preferred by many urologists; however, the nonvisualizing instrument is more satisfactory for crushing large stones. A rongeur should not be used to handle calculi of any considerable degree of hardness. Many accidents have been reported from such use.

Formerly, more than three-fourths of bladder calculi occurred in patients under 30 years of age. Today, stones are seldom found in young people, but are most common in the seventh decade, usually with obstruction at the bladder neck as an associated condition. The change in age incidence undoubtedly results from improvement in the diet of children.

Surgical management of bladder stone. J. Urol. 66:201-212, 1951.

Portable equipment is essential for the man who does urologic surgery in several small hospitals.

Mechanical Aids in Prostatic Resection

JOHN H. DOUGHERTY, M.D.
East Tennessee Baptist and Knoxville General hospitals, Knoxville, Tenn.

THE urologist who operates in several remote small hospitals, rarely with the same assistant, needs technical equipment which is simple to use and easy to transport and procedures which can be adapted to the surroundings.

For doing prostatic surgery on a standard operating table in small institutions, John H. Dougherty, M.D., uses a portable circular rack with two long prongs which slide under the mattress. Lateral elbow rests on the rack greatly reduce fatigue.

The circular portion of the rack protrudes from the end of the table under the patient's perineum, and a large funnel, made to fit the rack, collects the drainage from the resectoscope. A separate strainer at the bottom of the funnel collects all particles, while the rest of the drainage pours through a tube to a vessel on the floor. The operator stays dry without an apron, and blood loss can be quickly evaluated.

All instruments passing through the urethra are lubricated with 5% water-soluble sulfonamide ointment to decrease local infection.

After the resectoscope is passed, the bladder is distended, and a made-to-order No. 26 trocar is introduced into the bladder through the abdomen. A specially-made No. 26 irrigation drainage malecote catheter on a straight stilet is passed through the trocar, the trocar removed, and the catheter anchored. The irrigation portion is clamped and the drainage tip is connected to a tube leading to a bottle at bladder level.

With this procedure, the view is constantly clear during resection, regardless of the amount of bleeding, and the proceedings need not be stopped to remove blood sludge from the bladder. The loss can be easily determined from the drainage bottle. Proper distention of the bladder can be maintained and air bubbles are eliminated. Particles drop easily to the floor of the bladder.

Instead of moving the patient to his room on a stretcher, the bed is brought to the operating room and the patient transferred immediately. Thus tubes and dressings are not deranged and additional movement causing bleeding is decreased.

The operative technic described above provides for postoperative drainage and irrigation of the bladder, if bleeding occurs, and allows use of the Foley bag as a pressure hemostat. Sterile water from a 1,000-cc. bottle is run through the irrigating tip of the suprapubic tube at the

Ordinary problems met with in electrosurgery of the bladder neck and their solution. South. M. J. 44:791-796, 1951.

rate of 25 drops per minute. The drainage tips of the suprapubic tube and the Foley urethral catheter are run into bedside bottles covered with gauze. Introduction of infection is thus prevented. Early removal of the urethral tube and exercise of the voiding mechanism are possible, so that the patient can be out of bed soon and sleep restfully.

Perineal Hypospadias in True Hermaphroditism

W. CALHOUN STIRLING, M.D.,
AND ALFRED J. SURACI, M.D.

CAREFUL planning and meticulous execution of surgery can aid the hermaphrodite to live a relatively normal life both physically and psychologically.

A case of true bisexuality is reported by W. Calhoun Stirling, M.D., of Walter Reed General Hospital, Washington, D.C., and Alfred J. Suraci, M.D., of Washington, D.C. The patient had cryptorchidism and perineal hypospadias. A normal penis, devoid of urethra, and two well-developed labia were found, but no vaginal orifice. The abdomen contained a uterus, tube, and ovary on the right side, with a small testicle and cord on the left, the vas deferens being attached to the uterus.

Since the contour of the body and the pelvic outlet were android and the psychologic attitude was masculine, the patient was converted to a male. The uterus and ovary were removed and the testicle was brought down into the left labial fold. Injections of 10 mg. of testosterone propionate were given weekly to stimulate the secondary male characteristics.

A plastic operation on the hypospadias was performed later. The first stage was establishment of a new fossa navicularis; the new urethra was formed around a size 28F catheter six weeks later.

Repair of the urethra was stopped at the base of the penis. A lateral scrotal flap, elevated to receive the raw surface of the penile shaft, was allowed to heal and remain in place for three months.

At the second procedure, after suprapubic cystostomy to divert the urinary stream, the scrotal flap was freed, mobilized, and formed over a catheter to make the proximal portion of the urethra. The penile shaft defect was closed by rotating the previously formed flap toward the midline. Superimposed suture lines were avoided.

The newly formed urethra was dilated, and an indwelling Foley catheter passed to the bladder. The catheter was removed on the tenth day, when urination through the urethra was possible.

Final report of a case of true hermaphroditism with repair of perineal hypospadias. J. Urol. 65:1119-1128, 1951.

Sequelae of massive irradiation do not contraindicate use of this therapy in view of the improved results achieved.

Roentgen Treatment of Inoperable Oral Cancer

GEORGE WHITE, M.D.
Pondville State Cancer Hospital, Walpole, Mass.

WILLIAM R. CHRISTENSEN, M.D.
Royal Cancer Hospital, London

MASSIVE doses of irradiation for inoperable intraoral carcinoma control the primary lesion more satisfactorily than does conventional dosage and permit earlier treatment of metastatic neck nodes.

Oral cancer is usually treated by roentgen rays when surgical excision is impossible because of such factors as inaccessibility of the tumor, excessive size, or the patient's poor physical condition.

PROCEDURE

The patient's oral hygiene is improved before irradiation is started. Generally, all teeth are removed to eliminate local infection and allow a large intraoral radiation portal.

Although teeth not in the path of the roentgen beam are sometimes left, this is not advisable. A heavily radiated mandible becomes atrophic, is susceptible to trauma and infection, and may precipitate overwhelming radiation necrosis. A healing period of five to seven days after extraction is allowed before roentgen therapy is begun.

Treatment is usually done through one intraoral and three external portals. The intraoral therapy is completed rapidly because the major portion of the tumor dose is delivered by this route and radiation reaction appears in the late stage of treatment, making the intraoral portal difficult and painful to use. About 6,000 r in air is usually given through this portal over a fifteen-day period.

Two lateral portals on either side of the jaw and one submental are employed externally. Initially, the intraoral portal and one external field are used daily until the intraoral treatment is completed. Later, two of the three external portals are employed daily in rotation, to rest some of the skin surface. No more than 3,000 r is administered externally, so that the skin and underlying tissue are preserved for further treatment of diseased neck nodes.

The total tumor dose usually varies between 9,000 and 12,000 r. The only modifications in dosage are used for elderly debilitated patients, for those with postoperative recurrent carcinomas, or when soft tissue has been altered by long-standing chronic infection.

A radiation mucositis is established at the end of two weeks, and the tumor shows definite regression.

Control of inoperable oral cancer with massive roentgen therapy. New England J. Med. 245:719-723, 1951.

By thirty days, when radiation therapy is completed, reaction is most intensive and careful attention must be paid to oral hygiene and diet, with the use of chemotherapy as a prophylactic measure against any possible infection. The skin reaction is only moderate, but the radiation reaction within the mouth is more intense and lasts longer than effects after conventional roentgen doses.

RESULTS

George White, M.D., and William R. Christensen, M.D., compared results for 63 patients given massive doses with those attained by 55 persons receiving 7,000 r or less. All lesions were proved intraoral epidermoid carcinomas, including the buccal cavity, floor of mouth, palate, tongue, and tonsil. No treatment was modified by histologic grading.

Recurrence is very rare in the first year after either form of irradiation. This is strong presumptive evidence that the local carcinoma has been controlled, an important point in the early management of metastasis.

Conventional dosages resulted in an immediate recurrence or persistence rate of well over 50%. On the contrary, massive dosages, averaging 9,500 r, effected excellent control.

If those patients who died within one year with no evidence of local disease are considered of indeterminate status, the recurrence rates for the high- and low-dosage groups are 30 and 85%, respectively. Nearly half the patients who received massive therapy are alive with no evidence of the local lesion, with more than half of these surviving beyond three years. In contrast, the conservatively treated group have only 6 primary lesions adequately controlled, and only 1 patient surviving more than three years.

Failure of control of the local lesion after massive therapy is quite high in lesions of the tonsil, but quite low in cancer of the cheek and alveolar ridge.

Almost no sequelae occur after conventional therapy. Approximately 25% of the patients given high dosage have radiation ulcers or radiation necrosis.

Resection of the mandible is required in most cases of necrosis but all patients eventually benefit from medical and surgical treatment.

¶ UTERINE TUMORS that encroach on the cavity may be identified by a combination of radiography and direct vision, with or without biopsy. W. B. Norment, M.D., of Greensboro, N.C., injects 5 to 7 cc. of water-soluble dye, not as dense as Lipiodol, into the uterine canal and obtains one roentgenogram after insertion and another after withdrawal of a ureteral catheter tip cannula. A water hysteroscope is then inserted. Both the lens system and uterine surfaces can be washed for a clear view, and bloody fluid is removed by suction. Photographs may be made, or a small polyp fulgurated with a tip carried through the biopsy channel.

Am. J. Surg. 82:240-247, 1951.

Medical Forum

Discussion of articles published in MODERN MEDICINE *is always welcome. Address all communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Rheumatic Fever Symposium*

Comment invited from
Leo M. Taran, M.D.
B. M. Kagan, M.D.
Edward E. Fischel, M.D.
Barnet M. Hershfield, M.D.
A. D. Dennison, Jr., M.D.
U. J. Gareau, M.D.
S. J. Usher, M.D.

► TO THE EDITORS: Dr. Arild E. Hansen, as guest editor of your recent symposium on rheumatic fever, has done a remarkable job of putting together the old and the new knowledge regarding that disease. I must say that he put it together in a most admirable way—easily understandable to the average physician. I have enjoyed reading the symposium immensely and have placed it on our list of "must" readings for the staff.

In reality there is so much material covered in this symposium that it is rather hard to find anything worth-while to add.

I have been much impressed over the years with the fact that classical rheumatic fever constitutes a small problem in the diagnosis and treatment of this disease. I have also been impressed from time to time that the sequence of events in the pathogenesis of rheumatic fever does not occur as frequently as the textbook story indicates. Therefore, it would seem to me that it is somewhat premature to impress upon the general practitioner that an attack of rheumatic fever is necessarily preceded by a hemolytic streptococcal infection and a latent period of one to three weeks. A larger percentage of cases of rheumatic fever that we see begin their "career" unheralded and unrecognized until typical rheumatic cardiac damage becomes manifest.

The smoldering protracted case of carditis has not been fully described in rheumatic literature. Dr. Hansen's description of the multiplicity of manifestations of rheumatic fever, and particularly his description of carditis, must be commended for clarity and fullness. In my experience, however, there still remains the patient who is discovered to have low-grade smoldering carditis lasting for months and years without a predictable end. I believe it should be stressed that many cases of smoldering carditis may continue to have active rheumatic disease in the absence of any corroborative laboratory data such as an elevated sedimentation rate.

In the past few years a good deal of solid evidence has accumulated in our cardiographic studies which points up the original observation that careful analysis of the electrical

*MODERN MEDICINE, Oct. 1, 1951, p. 69.

events in the cardiac cycle may prove to be the most sensitive index of the presence of an acute process in the heart muscle. While Dr. Hansen's experience may not corroborate the fact that the prolongation of the QTC is a helpful diagnostic measure in questionable cases of carditis, it is our impression from the latest studies that the confusion in the literature regarding this measurement is due mainly to failure to recognize that the technical aspects of this measurement are important. In a series of papers which are now prepared for publication we hope that this subject will be clarified and that the measurement of the QTC will then be added as a very important factor on the scorecard for the diagnosis of rheumatic carditis.

Finally, I must say that the scorecard for diagnosis of rheumatic fever is a major contribution, but somewhere on this scorecard it might be mentioned that the absence of a score for both major and minor manifestations of rheumatic fever does not yet rule out the diagnosis of mild smoldering carditis.

Dr. George M. Wheatley presents such a clear analysis of the broad considerations of the problem of rheumatic fever that any physician reading this material must carry away an explicit picture of the extent of this disease as we know it now and an optimistic outlook for the future. I have learned a great deal from Dr. Wheatley's article. Few physicians have had the opportunity to look as closely as he has upon this disease as a community problem.

The management and care of rheumatic children has been adequately discussed by Dr. Hansen and other contributors to the symposium. Our experience, however, teaches that it is much too early to assign specific therapeutic value to ACTH and cortisone in affecting the mechanism of rheumatic disease.

We are well aware that in the acute exudative phase of rheumatic fever these hormones act more completely and more expeditiously than full doses of salicylates. We are not convinced for the present that these hormones shorten the course of rheumatic fever or prevent cardiac damage. Furthermore, their effectiveness in the more troublesome cases of protracted carditis has not been sufficiently explored to make a final evaluation possible.

LEO M. TARAN, M.D.

New York City

► TO THE EDITORS: In addition to sulfonamides and penicillin, it appears that aureomycin, terramycin, and possibly also Chloromycetin are effective in the prophylaxis of recurrences of rheumatic fever. In certain cases, one of these may be the drug of choice. On the basis of cost, especially, and possibly of total experience to date, however, I agree that sulfadiazine is the drug of choice. As more data are accumulated and the cost of the antibiotics decreases, aureomycin, terramycin, or Chloromycetin may become the preferred drug. Certainly the development of resistant strains of hemolytic streptococci appears to be much less likely with penicillin than with sulfadiazine.

Because of the general fear of the disease by physicians and laymen,

Dr. Wheatley's statement on prognosis should be emphasized. The "prospect of virtually complete recovery . . . is good in a great many cases." This knowledge should help ease the tension which tends to exist in the room of the child stricken with this disease. Relaxation of this tension and creation of an air of optimism will help the child recover.

Reference is made to the antifibrinolysin titer (p. 82). This is the older term. It is more properly called the antistreptokinase titer.

On the subject of multiple manifestations, we have been impressed with the frequency of pain in the feet, particularly in the soles of the feet. This has been more frequent than pain in the ankles in the last few years. We think of the possibility of rheumatic fever whenever we find pain in the feet in a child with any other suggestive symptoms or signs.

The Weltmann reaction is described as a "nonspecific protein precipitation reaction" (p. 91). There is reason to believe that this is not a protein reaction, and it would be in the scientific interest to delete the word "protein."

The question is raised as to whether the early administration of ACTH and cortisone may "assist in diagnosis or . . . cause even greater confusion in interpretation of the findings" (p. 107). In my experience it has caused only greater confusion. Certainly the administration of these hormones does not aid in differential diagnosis. Most of the conditions which give similar clinical pictures—leukemia, panarteritis nodosa, osteomyelitis—also respond symptomatically to other drugs, and with reduction of fever. Furthermore, when these drugs are given on the basis that the child is rheumatic, yet that diagnosis is in error, correct diagnosis may be obscured for a very long time. It is therefore very important that the diagnosis of rheumatic fever be as definite as possible *before* ACTH or cortisone is given.

In determining the duration of at-

(Continued on page 130)

almost a quarter million

"Approximately one of every fifteen infants is allergic to cow's milk to some degree...," according to Clein in a recently published article.* These allergic reactions produce a multiplicity of strange, baffling, serious and apparently unrelated clinical syndromes.

In Clein's series of 140 distressed babies allergic to milk, "most babies were relieved of their symptoms almost immediately by discontinuing cow's milk in their formula and substituting Mull-Soy..."* These symptoms include eczema, pylorospasm, diarrhea and colic.

Mull-Soy supplies (in standard 1:1 dilution) essential protein, fat, carbohydrate and minerals comparable to those of cow's and goat's milk. The fat in Mull-Soy is soy oil, a good source of unsaturated fatty acids.

babies annually allergic to cow's milk?

Mull-Soy is a liquid, homogenized (vacuum-packed) food—easy to take, easy to prescribe.

Available in drugstores in 15½ fl. oz. tins.

*Clein, N. W.: Cow's Milk Allergy in Infants, *Annals of Allergy*, March-April, 1951.

Mull-Soy

first in hypoallergenic diets

for infants, children and adults

The **Borden** Company

Prescription Products Division, 350 Madison Avenue, New York 17

tack there are, in addition to the tests mentioned, other reactions which may prove helpful. These may be referred to as acute phase reactions and include the tests for C-reactive protein, hexosamines, and nonglucosamine polysaccharides in addition to mucoprotein.

I question the aid of antistreptolysin titers in evaluation of rheumatic activity. They are helpful in differential diagnosis and in estimation of the probable presence of recent streptococcal infection. However, they are of little value in indicating activity of the rheumatic process.

The statement is made that *no* visitors should be allowed when the child is severely ill (p. 125). The experienced physician knows that no blanket rule can be made about such a matter. Consideration must be given to both the child and the parents. There are occasions when it is in the best interest of the child and the parents that they visit the child even though he may be critically ill.

The results of prophylactic use of penicillin (p. 131) obtained by Brick et al. are not quoted correctly. There were 3 recurrences among the 38 in the experimental group but there were only 6 instead of 9 recurrences among the 38 of the control group; 2 of the latter 6 were recurrences of chorea apparently without other manifestations of active rheumatic fever. The authors did not consider the number large enough to draw clear-cut conclusions.

I regret to see the term "albumin-globulin ratio" referred to (p. 135) for reasons about which I have already written extensively and will not repeat here (*Arch. Int. Med.* 71:157-163, 1943).

Lastly I would stress that much more work must be done before the therapeutic role of ACTH and cortisone in rheumatic fever is known. At the June 1951 meeting of the American Heart Association, Ann Kuttner and her associates reported on careful studies of 18 patients with rheumatic carditis. There was definite improvement in the general condition of all, but "it was not clear whether ACTH or cortisone significantly decreased the duration of active carditis or influenced cardiac damage."

B. M. KAGAN, M.D.

Chicago

► TO THE EDITORS: The Symposium on Rheumatic Fever is a commendable review of a highly important topic. Rheumatic fever requires periodic re-emphasis in order that physicians everywhere may aid in minimizing the effects of the disease through early diagnosis, early management, and adequate prophylactic and after-care measures.

With regard to early diagnosis, it should be mentioned that in the absence of conclusive diagnostic criteria, suspected cases should be examined and followed with care to avoid, on the one hand, subclinical progression or recurrence of the disease and, on the other, undue restraint and anxiety. To this end, the concepts suggested by the New York Heart Association may be useful, that is, the employment of such categories as "possible," "probable," or "potential" heart disease.

Early therapy with ACTH and

NEW THERAPY FOR OPHTHALMIC INFECTIONS

Furacin Ophthalmic preparations are especially valuable in external ophthalmic infections of bacterial origin: conjunctivitis, blepharitis—

because of stability at body temperature and their wide antibacterial spectrum.

Prophylactically they are indicated following chalazion operations, removal of foreign bodies and in corneal trauma and burns.

Literature on request

Reasons for the clinical effectiveness of Furacin include: a wide antibacterial spectrum, including many gram-negative and gram-positive organisms—effectiveness in the presence of wound exudates—lack of cytotoxicity: no interference with healing or phagocytosis—water-miscible vehicles which dissolve in exudates—low incidence of sensitization—stability.

Furacin Ophthalmic Liquid contains Furacin 0.02%, brand of nitrofurazone N.N.R. in an isotonic, aqueous vehicle. Furacin Ophthalmic Ointment contains Furacin 1% in a petrolatum-type base.

Furacin® Ophthalmic Liquid & Ointment

EATON LABORATORIES Inc.
NORWICH, NEW YORK

The NITROFURANS

A unique class of antimicrobials

cortisone was admirably stressed; salicylates should also be stressed. The traditionally employed medication appears to have a very useful place in the management of rheumatic fever if used properly, that is, adequate dosage administered early and continued for a long period of time.

For therapy of long duration, salicylates may be of greater help than hormones. Both types of therapy may be used to advantage, depending upon the availability of and familiarity with the drugs; indeed, they may be of greater benefit when used in conjunction than individually.

It is understandable that debate continues on many aspects of a disease, the pathogenesis of which is still ill defined. *Modern Medicine* and the various contributors to the Symposium on Rheumatic Fever are to be congratulated for presenting the important kernels of our knowledge that these may receive wider consideration and application.

EDWARD E. FISCHEL, M.D.
New York City

► TO THE EDITORS: The subject of rheumatic fever was well covered in your recent Symposium. It should serve as an excellent review. The following facts deserve special emphasis:

The protean nature of rheumatic fever. The extra-articular and extracardiac manifestations of the disease should be stressed.

The importance of treating streptococcal infections promptly and adequately. This is especially true for patients who have already had rheumatic fever and for those who seem, by virtue of heritage, habitat, and environment, to be more susceptible to rheumatic infection.

The need for the patient with endocardial or endarterial deformity to receive proper prophylactic treatment during surgery, especially in the "above-the-neck" region and essentially in infected areas. The incidence of subacute bacterial endocarditis following dental surgery still remains very high.

BARNET M. HERSHFIELD, M.D.
New York City

► TO THE EDITORS: The Symposium on Rheumatic Fever is indeed a most informative and authoritative presentation. I have been tremendously impressed by its thoroughness and find little to become polemic about.

A few interesting points may be brought out. One gets the impression that there is a strong pediatric scent to this symposium. Rheumatic fever is one of the great overlapping areas and the cardiologist would give his article a different flavor.

First, some comments about the PR interval prolongation. A prolonged PR interval is in many ways nonspecific, as it may be encountered in a great variety of infections and infectious diseases. True, it is found more regularly with rheumatic fever. It is interesting that carotid sinus pressure and Prostigmine may increase the PR interval in rheumatic fever while atropine will reduce the interval. These observations do not in any way affect the diagnostic significance of this finding.

In evaluation of activity, the vital capacity may be employed to detect activity, not solely failure. Improvement in vital capacity, even in the

virtually painless liver for injection

You need no longer hesitate to use parenteral liver therapy for your patients because of its painfulness or inconvenience. Pernaemon—Organon's new and different liver extract—is so highly purified that it is virtually painless on injection, and because it is virtually painless can even be injected subcutaneously into the arm, obviating the need for deep intragluteal injection. Each cc of Pernaemon contains vitamin B_{12} activity equivalent to a minimum of 20 mcg. of cyanocobalamin—the equal of at least 15 of the old U.S.P. units. When you prescribe Pernaemon you are assured of the most potent liver injection permitted by the U.S.P. Prepared from beef livers only, Pernaemon costs no more than ordinary parenteral liver extracts despite its many advantages. Available in 10-cc vials.

Organon INC. • ORANGE, N. J.

PERNAEMON®

Organon

absence of failure, suggests resolution of activity. This point is upheld by Dr. M. G. Wilson in her text on rheumatic fever published by the Commonwealth Fund. The protocol suggests that vital capacity is of value only in predicting the development or regression of cardiac compensation.

In the selection of a method for obtaining the sedimentation rate, a test of much value in this field, I would like to place my preference for the Westergren method. The longer tube with higher readings detects smaller drops in the figures and allows the discovery of minor increments of improvement. Recent personal correspondence and a conference with Dr. Currier McEwen have brought out the significant point that the "determination of the C-reactive protein in the blood" may be a very useful measure for determining activity in acute rheumatic fever. Dr. McEwen quoted Dr. Maclyn McCarty of the Rockefeller Institute for Medical Research, who was of the opinion that the value often would come down when the sedimentation rate continued high.

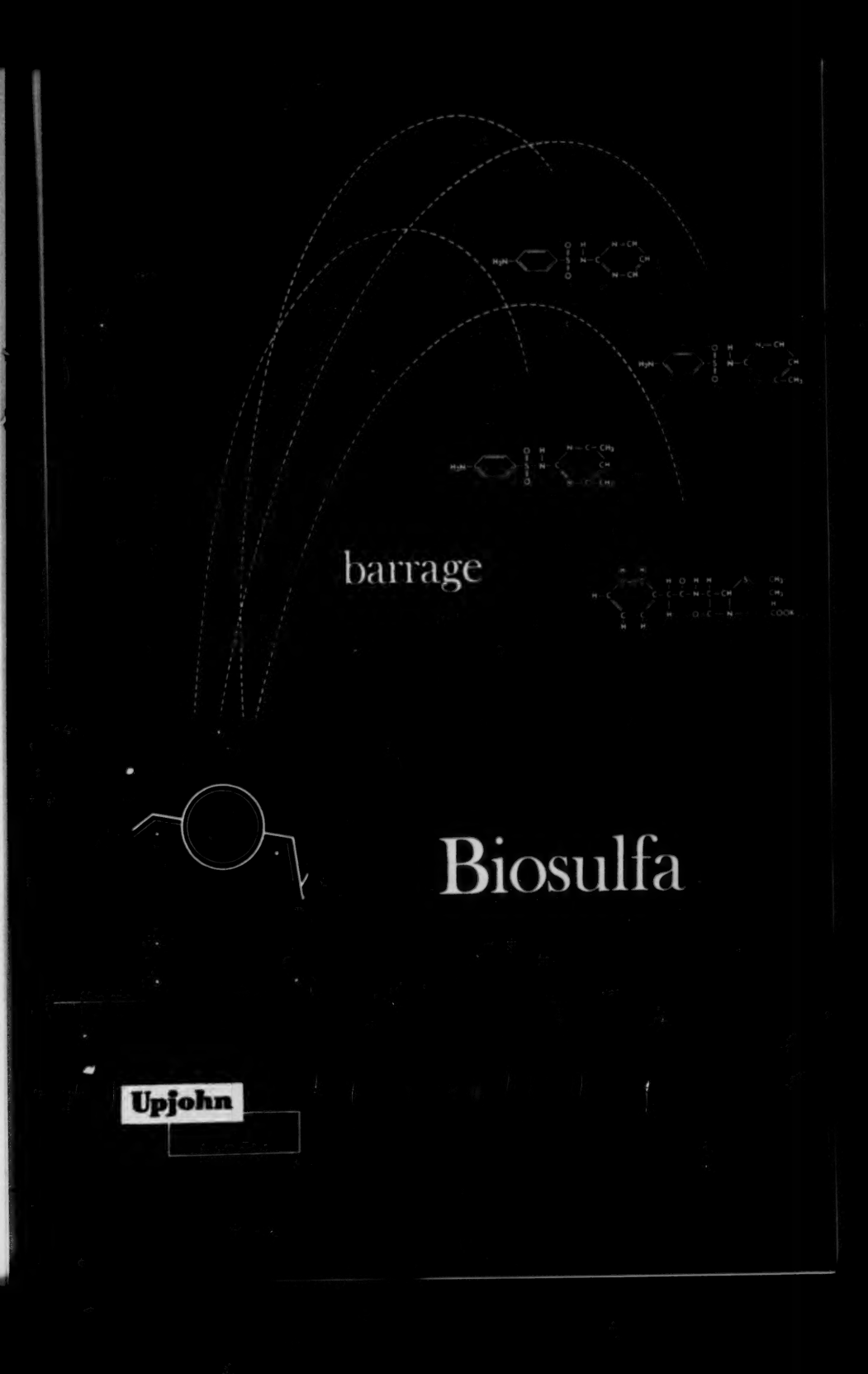
As for the QT interval in the diagnosis of rheumatic fever, one hesitates to jump into the middle of a question about which excellent papers have been written on both sides. The best position seems to be that a prolongation of the QT interval is confirmatory, but that if the interval is not prolonged, one must still entertain the diagnosis based on all the other evidence at hand.

The use of the term fibrous pericarditis makes one shudder when one realizes that here is another new term in a field cluttered with confusing and conflicting terminology. At several places in the protocol one finds an interchange of terms that absolutely require definition. It is my belief and experience that chronic constrictive pericarditis, that well-known syndrome, does not result from rheumatic fever. Dr. Paul White in the August 1951 issue of *Circulation* (p. 289) can be quoted as follows:

> Rheumatic fever, although frequently accompanied by pericarditis when there is pancarditis, does not result in chronic constrictive pericarditis. This can be stated quite definitely. Possibly there are rare exceptions but I myself have never encountered one.

Rheumatic fever may cause a chronic mediastinopericarditis. External and internal pericardial adhesions may be found which do not cause constriction and inability of the heart to fill in diastole. The comments in *Modern Medicine* (p. 97, 104, 119) do not make the differentiation between a definite clinical entity—chronic constrictive pericarditis—and the sequelae of rheumatic fever which is usually a pathologic finding at autopsy. Finally, the fixation of the electrical axis of the heart as an electrocardiographic study falls short of being significant evidence of chronic mediastinopericarditis because it may be seen in other conditions, particularly in massive cardiac enlargement per se.

The really rough problem in rheumatic fever is the differential diagnosis. In the list of conditions which may be confused with the fundamental diagnosis, lupus erythematosus should be mentioned. When this is lupus *sine* lupus, one's diagnostic


barrage
Biosulfa
Upjohn

acumen must be sharpened to the upmost.

Passing over briefly, the following points should be noted:

1] Importance of failure in a young adult as being evidence of activity

2] Danger of using sodium salicylate in the presence of failure because of the high addition of sodium to the total intake

3] The use of Bufferin as a very pleasant way of taking aspirin with a low incidence of gastric upset

4] Recent disappointing results from ACTH and cortisone in chorea

5] Need for a high vitamin C content in the diet because plasma levels of vitamin C have been found to be low in rheumatic fever and because the salicylates wash out vitamin C, so to speak, in the urine

6] The nonspecific effect high doses of salicylates have in lowering the sedimentation rate artificially

7] Personal unhappy experiences encountered in the use of ACTH and cortisone in old cases with failure, valvular disease, and activity.

The heart of the rheumatic fever problem is thus reached in an effective prophylactic program.

Personal experiences at the Victoria Foundation began with the use of sulfadiazine, then switched to sulfamerazine because of the lower dosage required and because higher blood levels and lower toxicity could be obtained more easily, and finally to penicillin tablets orally. Perhaps much more could have been said about the present status of penicillin prophylaxis of rheumatic fever. As the dosage has continued to increase, and thus the price, so has the difficulty in getting mothers and children to cooperate. Yet this is the ultimate battlefield in this problem. One can be greatly helped by reading Dr. Benedict F. Massell's article in the September 1951 issue of *Modern Concepts of Cardiovascular Disease* entitled "Present Status of Penicillin Prophylaxis of Rheumatic Fever." This embodies the various regimes and dosages and even faces the problems of cost and of obtaining the cooperation of children to take tablets several times a day, always on an empty stomach.

Symposiums such as this must certainly have a tremendous impact on the profession as a whole. Within its confines are the most concise and accurate facts known today about this important and puzzling disease.

A. D. DENNISON, JR., M.D.
Maplewood, N. J.

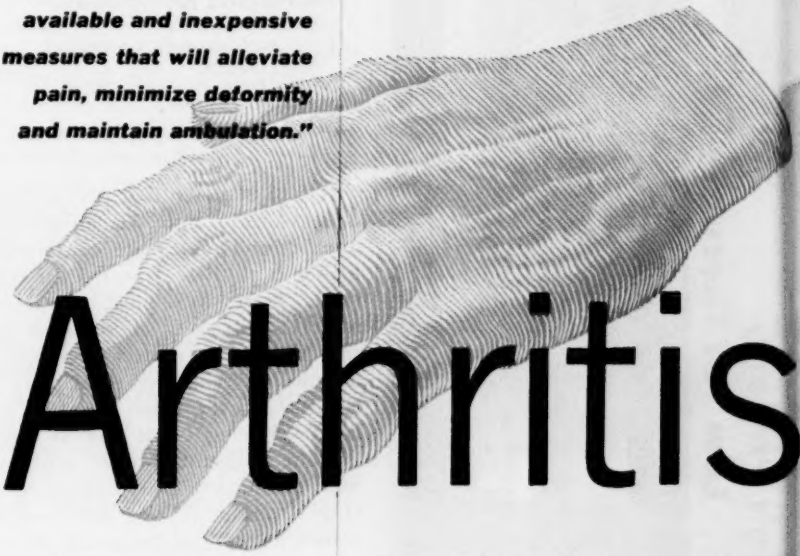
► TO THE EDITORS: The treatment of rheumatic fever and chorea has been well standardized for some time so the article on management does not add much that is new. The author wisely has little to say at this time about the use of cortisone in treatment.

We agree that weight gain, not necessarily a normal sedimentation rate, may be a criterion of good progress.

To quote one part of this Symposium, "Creation of a 'heart cripple' in a person not actually afflicted with rheumatic fever is one of the greatest dangers of misdiagnosis." We have seen this happen too frequently and cannot refrain from copying statistics about Toronto from an article by

"Despite the spectacular suppressive effects obtained by . . . ACTH and Cortisone . . . the basis of treatment must continue to be the simple, readily available and inexpensive measures that will alleviate pain, minimize deformity and maintain ambulation."

Pruce, A. M.: J. Med. Ass. Georgia 40: 101, 1951



Arthritis

Available: **SULPHOCOL** Capsules for oral use in bottles of 100 and 1000. Dose 1 capsule three times daily.

SULPHOCOL SOL for parenteral use in 25 cc. multiple-dose vials and boxes of 12-2 cc. vials. Dose: Ascending doses every 3 to 7 days starting with 0.25 cc.

SULPHOCOL—Colloidal Sulfur Compound—meets these requirements. By its detoxifying action it reduces joint swelling and thus lessens pain; further joint involvement is prevented or minimized. It is comparatively inexpensive. Moreover, it is safe.

Over a period of years SULPHOCOL has given gratifying relief to thousands of arthritis patients. Clinical experience is ample proof of the efficacy and safety of this form of therapy. It has stood the test of time.

Write for literature and sample of Sulphocol Capsules.

SULPHOCOL®

Colloidal Sulfur Compound

Oral and Parenteral

MULFORD COLLOID LABORATORIES

A PRODUCT OF THE MULFORD COLLOID LABORATORIES

THE NATIONAL DRUG COMPANY, PHILADELPHIA 44, PA.

More Than Half a Century Service to the Medical Profession

Dr. John Keith on congenital heart disease in *Modern Trends in Pediatrics*.

INCIDENCE AND MORTALITY RATE OF HEART DISEASE IN AGE-GROUP BIRTH TO 15 YRS.

Population (whole group)	130,000
Total number with rheumatic heart disease	120
Total number with congenital heart disease	290
Deaths from rheumatic heart disease in 1948	5
Deaths from congenital heart disease in 1948	33

It is to be noted that the incidence of and deaths from congenital heart disease in Toronto are considerably higher than those reported for rheumatic fever. We must beware of severely restricting children or putting them to bed over a period of months for what we think may be rheumatic fever, when the child may have "growing pains and an unimportant congenital heart murmur." Such action may cause damage to the child's personality of more serious consequence than the actual physical damage caused by a mild to moderate attack of untreated rheumatic fever.

U. J. GAREAU, M.D.

Regina, Sask.

► TO THE EDITORS: The problems cited in the article on differential diagnosis of rheumatic fever appear very formidable and include the elimination of almost 20 different conditions.

Perhaps it would simplify the diagnosis of rheumatic fever greatly if we considered eliminating only 3 or 4 of the most common conditions in our differential diagnosis of the acute stage when fever and pains are present. I consider acute osteomyelitis, recurring acute tonsillitis, rheuma-

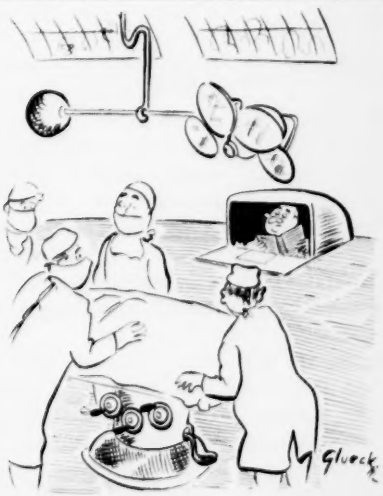
toid arthritis, and poliomyelitis the chief problems.

The fact that the joint pains in rheumatic fever do not remain localized in one joint and that the use of salicylates will quickly relieve the pain has been of great help in our differential diagnosis. The problem becomes more difficult, however, when there are vague joint pains without fever. Then a sedimentation test is of invaluable help. It is often forgotten that flat feet or poor posture can cause pains in the lower extremities. These pains, however, usually occur at the end of the day after the child has gone to bed.

Chorea may often pose a real problem in diagnosis. The severe type can, as a rule, be easily differentiated from the other severe disturbances mentioned in the article, mainly by the absence of twitching movements when the child is asleep. The chief disorders from which mild chorea must be differentiated are habit spasm, imitation, and nervousness.

S. J. USHER, M.D.

Montreal



Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the Clue requires unusual acumen and luck; from Part II, perspicacity; from Part III, discernment.

Case MM-208

THE CLUE

ATTENDING M.D: I would like you to see a 43-year-old woman who was in good health until six months ago when strange behavior developed, with spells of unconsciousness followed by amnesia and headache. Five months ago she had a convulsion and some auditory hallucinations.

VISITING M.D: What do you mean by "strange behavior"?

ATTENDING M.D: At times she stared and, according to her family, "didn't act right."

VISITING M.D: Sort of confusion, I take it, and petit mal attacks?

ATTENDING M.D: Yes. There was no bizarre behavior. She spoke of weakness and humming in her head, more on the right side than on the left, and occipital headache.

VISITING M.D: I take it that this convulsion five months ago was a grand mal seizure?

ATTENDING M.D: Yes. It occurred during menstruation. She had never had a major convulsion before.

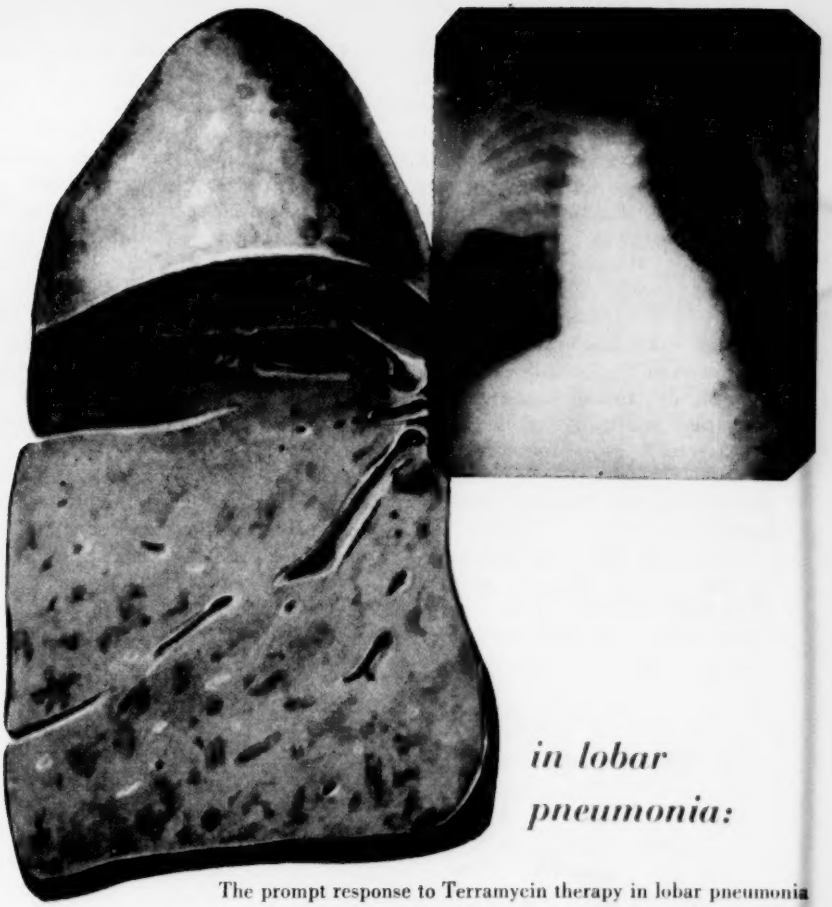
VISITING M.D: Please describe these hallucinations in detail and tell me why you want me to see her.

ATTENDING M.D: We'd like you to see her as a psychiatrist, since the neurosurgeon is not sure whether this is a functional illness. The hallucinations are strange.

PART II

VISITING M.D: *(Later, reading hospital chart)* I see that the patient is scheduled for an electroencephalogram this afternoon. My neurologic and physical examinations of the patient were negative, the fundi and visual fields normal. *(Holding up the roentgenograms of head and chest)* These are within normal limits. Not too much localizing, is there?

ATTENDING M.D: No. This is what led Dr. Smith to ask you to see the patient. The confusion, nervousness, and "dithery" feelings



in lobar pneumonia:

The prompt response to Terramycin therapy in lobar pneumonia is consistent with results obtained in primary atypical pneumonia, bronchopneumonia and many other infections of the respiratory tract. In a typical series of pediatric cases, Terramycin-treated, "temperatures returned to normal in 24 to 48 hours after therapy was begun. The clinical appearance of marked improvement took place during the same period."

Potterfield, T. G., and Starkweather, G. A.:
J. Philadelphia General Hosp. 2:6 (Jan.) 1951

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE

available | *Capsules, Elixir, Oral Drops, Intravenous, Ophthalmic Ointment, Ophthalmic Solution.*

ANTIBIOTIC DIVISION **Pfizer** CHAS. PFIZER & CO., INC., *Brooklyn 6, N.Y.*

were unusual, but her hallucinations were the final straw. These include hearing indistinct voices, running feet, pigs squealing, dogs licking their jaws, motors running, cows mooing, whistles blowing, meat frying, children crying, and the sound of milk bottles clanking.

VISITING M.D: What is the patient's attitude toward these hallucinations?

ATTENDING M.D: She says that they are not real. She is only concerned because she thinks it unusual to hear pigs squealing in her head.

VISITING M.D: A most un-neurotic response! Those may be misinterpreted vascular sounds in her head . . .

ATTENDING M.D: There was no change in the carotid pressure and no bruit heard over the head.

VISITING M.D: Let's wait until more of the laboratory work is back and see her tomorrow. She does not look acutely ill. I believe that she may have a brain tumor. A suspected brain tumor very rarely constitutes an emergency situation. I have so often seen patients rushed by ambulance to a hospital because of a diagnosis of brain tumor but . . . . I think you'd better leave me alone with the patient and I'll talk to her for awhile as a psychiatrist, if you will forgive the expression.

PART III

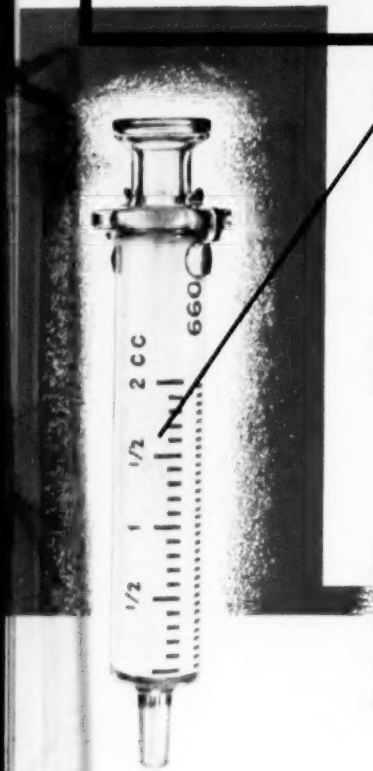
ATTENDING M.D: *(Twenty-four hours later)* Results of complete blood and urine studies are normal. The electroencephalogram showed a right temporal delta with a markedly abnormal degree of activity.

(Continued on page 146)

"Sometimes I think it would be a treat to see just one look of disapproval."

Ideal

The Hypodermic Syringe



● **IDEAL HYPODERMIC SYRINGE**
guarantees absolute readability of calibration
—for the entire life of the instrument!

BANISHED FOREVER
—the old hunt and guess method of deciphering chipped off and faded markings. From the first time you use an IDEAL Hypodermic Syringe—right up to the last—you're assured of clear, well defined calibrations!

NOW FOR THE FIRST TIME
—pigmentation is actually fused right into, not on the glass, leaving graduation markings flush with the surface and extending well below. They cannot be scratched off. No amount of sterilization will remove them—only breakage of the barrel will destroy the markings.

RESISTANCE GLASS
withstands long sterilization.

EAST RUTHERFORD SYRINGES, INC.
EAST RUTHERFORD NEW JERSEY

Insure proper dosage-Minimize Waste

IMPROVED with PERMANENT CALIBRATION!

U. S. PATENT #2,505,411
ISSUED APRIL 25, 1950

Exclusive Distributor to the Surgical and Hospital Supply Trade:
EMPIRE STATE THERMOMETER COMPANY, INC.
10 W. 33rd STREET, NEW YORK 1, N. Y.

Use the New Improved Ideal Hypodermic Syringe

VISITING M.D: *(Looking at the electroencephalogram)* I believe that this suggests a right-sided focal lesion, the only localized sign we have. I cannot say that my psychiatric interview with the woman was unproductive: She comes from a broken home and had an alcoholic father who committed suicide and a sister in the state hospital with schizophrenia. The patient has really been suffering from moods of depression, but my conclusion is as follows *(writing on the chart)*: "Auditory hallucinations from a psychiatric standpoint are consistent with brain tumor, temporal lobe symptoms."

PART IV

VISITING M.D: *(Next day, at consultation)* The patient has become increasingly nervous and jittery today, but the auditory sensations are gone. She speaks of some numbness in her *right* arm and leg. I don't know why this appears in the right arm, but the neurosurgeon and I agree that a pneumoencephalogram should be made.

NEUROSURGEON: I concur with the consultant's opinion that the whole history is consistent with the rapid development of temporal lobe symptoms and would say that the patient has a glioblastoma multiforme. We will schedule a ventriculogram for tomorrow.

(At midnight the patient suddenly has Cheyne-Stokes respiration and expires within ten minutes, before the neurosurgeon arrives.)

PATHOLOGIST: *(At autopsy the next morning)* The patient had a massive necrotic tumor in the right temporal lobe, unquestionably a glioblastoma. Frozen sections bear this out.

ATTENDING M.D: Too bad we didn't do an air study immediately and operate.

VISITING M.D: Not too bad at all. I believe that the case was handled correctly. The dice were loaded against the woman before she entered the hospital doors. Surgery does not save these patients. We only spared her and her family pain, expense, and the unfounded hope that surgery would help. Physicians often do not appreciate the wisdom of moving slowly nor know when to move slowly and when to move fast. It's a fine point that comes with experience, and although in this case the outcome is tragic, it is also a lesson for us, the moral of which used to be expressed in three words by an old professor of mine to his impetuous medical students: "Wait, Caution, Care."

"I think its claustrophobia, Doctor."

PROTAMIDE

Clinically Proved

An Achievement in the Therapy of

HERPES ZOSTER

QUICK—In the clinical treatment of herpes zoster, pain has been relieved within four to forty-eight hours with Protamide. The average time for complete relief is four days or more, depending upon the severity of the case.

EFFECTIVE—Marsh reported: "Thirty-one cases of herpes zoster treated with Protamide good to excellent results were obtained in twenty-eight cases." Vesicles and crust also disappeared much more rapidly than usual.

SAFE—Protamide is non-toxic and has no contra-indications. Pharmacologic and toxicologic tests over long periods showed no protein sensitivity and true anaphylaxis could not be produced.

CONVENIENT—Protamide is stable indefinitely at room temperatures. The ampul contains the optimum dose of 1.3 cc. and its simplicity and absence of pain in administration makes it convenient and easy to use.

A card or your prescription blank, marked "Protamide," will bring both literature and reports.

SHERMAN LABORATORIES

Published by Clay-Adams Co., Inc.
141 EAST 25TH STREET,
NEW YORK 10, N. Y.
Showrooms also at 308 W. Washington St., Chicago 6, Ill.

Clay-Adams

Plastic Sponge is Framework for Living Tissue

"Plastic Sponge Which Acts As A Framework For Living Tissue," by John H. Grindlay, M.D., and John M. Waugh, M.D., Rochester, Minn. *A.M.A. Archives of Surgery, 63,* 3, Sept. 1951.

Ivalon sponge, a new polyvinyl plastic, has yielded excellent experimental results in surgical procedures, when used as a framework in place of living tissue to fill defects and correct deformities.

In contrast to currently-used foreign materials such as tantalum, vitallium, stainless steel and certain plastics, for surgical reconstruction, polyvinyl sponge acts as a framework into which living tissue grows. Initial results on dogs and human beings offer great promise for further widespread use. Its immediate use for huge abdominal aneurysms seems justified.

● **Experimental Procedures**—Pure, sterile polyvinyl sponge, molded or cut to fit the defect, was surgically implanted in 37 areas in 28 dogs. The operations included: filling the empty pleural cavity after pneumectomy; replacing a rib section; replacing the right hemidiaphragm and anterior sheath of the rectus muscle; placing a piece of sponge under a breast nipple and between the orbital ridges of the frontal bone; suturing thin plates of sponge to the surface of the ear cartilage.

Some experiments were terminated after one month, some between six and eighteen months, and some are still in progress. In almost all cases, the sponge did not become fixed to surrounding tissue, although blood vessels and connective tissue grew into it. Gross and microscopic examinations of the excised sponge and surrounding tissues showed no evidence of inflammatory reactions, with recognizable cellular tissue fitting into spaces not occupied by sponge substance.

● **Lung Surgery**—Polyvinyl sponge, by setting up a fibrogenic reaction, can prevent the spread of infection into the extrapleural space, often a serious outcome of extrapleural plombage for tuberculosis. The sponge is shrunk about 25 percent by boiling and trimmed to fit the cavity. The lung is stripped, the plastic sponge packed firmly, and the cavity closed without drainage.

Polyvinyl sponge was employed in 17 plombage operations on 14 patients to fill the space some time after extrapleural pneumothorax, and as a prosthesis following resection. In most cases bacilli rapidly disappeared from the sputum. (A. Hurst, *et al., Diseases of Chest, 20,* 2, Aug. 1951, 134-138.)

● **Abdominal Aneurysms**—Polyvinyl sponge has been successfully used to reinforce large abdominal aneurysms since April, 1950. Four cases to date have been successfully treated by placing sheets of polyvinyl sponge between the aneurysm and peritoneum. Since no other surgical procedure can be used in these cases, and since this operation is simple and without undue strain on the patient, its use appears justified at this stage.

Polyvinyl sponge is a lightweight, wettable, resilient material made from polyvinyl alcohol and formaldehyde. It is available in pure form for medical use from Clay-Adams under the name "Ivalon Surgical Sponge." It may be sterilized in boiling water and is readily cut into various shapes and sheets. It is chemically stable and biologically inert.

One explanation for its startling success as a framework for living tissue, is its great affinity for water. Perhaps surrounding tissue does not differentiate polyvinyl as a foreign body because tissue fluids enter it and are followed by cells.

Newsletter

FOR THE MEDICAL AND BIOLOGICAL SCIENCES
Number 8 of a Series

SPECIAL LITERATURE AVAILABLE

Detailed descriptions on the following may be obtained from Clay-Adams on request by number:

Mazzini Microflocculation Test Slide	Form 507
Moloy MEDICHROME Series	Form 339
IVALON Sponge	Form 513

Mechanisms of Labor...

are clearly set forth in Clay-Adams Medichrome Series MG5, 79 black and white 2" x 2" lantern slides. Prepared by Howard C. Moloy, M.D., College of Physicians and Surgeons, New York, explanatory notes and data on this series were expanded by Dr. Moloy into a monograph, *Clinical and Roentgenologic Evaluation of the Pelvis in Obstetrics*, published by W. B. Saunders Company, 1951. The entire series of slides is correlated with this book. These slides are invaluable for teaching and study.

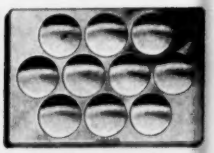
Over 10,000 Medichrome subjects are available from Clay-Adams. Write today for a summary of the slides we have available.

Approved Microflocculation Slide for Mazzini Syphilis Test

The only approved test slide for the Mazzini Cardiolipin Microflocculation Test for Syphilis is now available from Clay-Adams. Two types of slide are in use, one for serum (right), and one with spinal fluid (left). Both slides are 3" x 2" x 6 mm. deep. The serum slide has 10 concavities, each 16 mm. in diameter and 1.75 mm. deep. The spinal fluid slide has 3 concavities, one 38 mm. in diameter x 1.75 mm. deep, and two 20 mm. in diameter x 1.75 mm. deep. Both slides have frosted surfaces.

Adaptation of cardiolipin antigen to the Mazzini technic will be found in *Journal of Immunology, 66*, 2, Feb. 1951, 261-275.

For spinal fluid



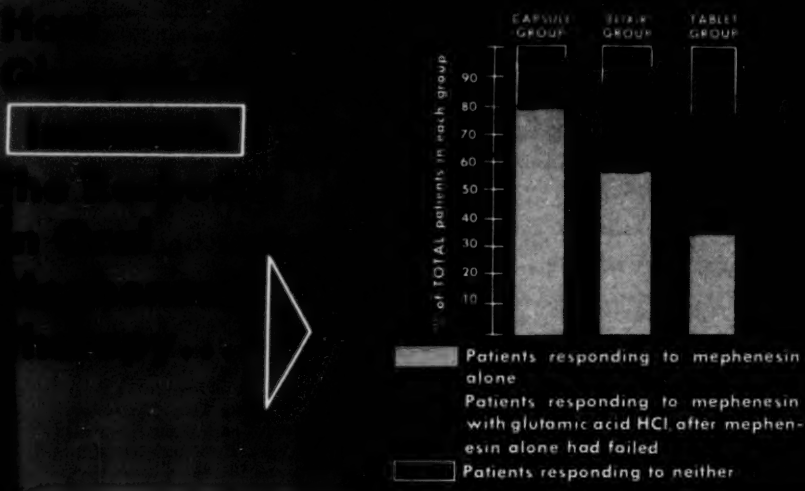
For serum

HERE IS A PARTIAL LIST OF OUR PRODUCTS

- Adams Centrifuges
- Uterine Cancer Detection Kits
- Blood Analysis Instruments
- GOLD SEAL Slides & Cover Glasses
- Supplies for Microscopy
- Dissecting Kits
- Surgical & Dissecting Instruments
- Surgical Rubber Goods
- Clinical Laboratory Supplies
- Gastro-Duodenal Tubes
- Polyethylene Tubing
- GOLD SEAL Syringes & Needles
- Adams Stethoscopes
- JUSTRITE Wound Clips
- Obstetrical Manikins
- Skulls & Skeletons
- MEDICHROMES—2x2" Kodachromes
- Anatomical Charts & Atlases

Clay-Adams Company, Inc. 141 EAST 25TH STREET, NEW YORK 10, N. Y.

CLAY-ADAMS PRODUCTS ARE AVAILABLE FROM LOCAL SURGICAL AND SCIENTIFIC SUPPLY DEALERS



Capsules **TOLAMIC** TRADEMARK

[BRAND OF MEPHENESIN AND GLUTAMIC ACID HYDROCHLORIDE]

Each TOLAMIC capsule provides:
Mephenesin . . . . . 0.25 Gm.

plus

Glutamic Acid
Hydrochloride . . . . . 0.25 Gm.

"Until this combination therapy has failed, mephenesin should not be discarded as ineffectual."[1]

SUPPLIED:

K·U

Basic Science Briefs

Geriatrics

Kidney Function in Old Age

Both reabsorption of glucose by renal tubules and glomerular filtration decrease steadily with age. In men of 24 to 86 years who have no evident heart, vascular, or kidney ailment, ratios of the two functions remain practically constant. Values are cited by Dr. J. H. Miller and associates of the National Institutes of Health, Bethesda, Md., and the Baltimore City Hospitals. The average tubular resorption of glucose dropped from 359 to 219 mg. per minute, and inulin clearance from 146 to 81 cc. per minute.

J. Gerontol. Vol. 6, no. 3, supp., 1951, p. 127.

Circulation

Effects of Valsalva's Maneuver

In healthy subjects, forcible expiration with nose and mouth closed increases the pulse rate and lowers pulse pressure. After the strain, blood pressure falls, then jumps above the pretest value, and reflex bradycardia occurs. Venous pressure mounts during the maneuver and subsequently drops. By giving preliminary atropine and tetraethylammonium chloride, Dr. E. Elisberg and associates of Chicago explained the cardiovascular response. Reflex bradycardia is mediated by efferent cholinergic fibers in the vagus going to the heart, and the blood pressure overshoot results from reflex vasoconstriction. With either atropine or TEAC administration, tachycardia develops after the Valsalva maneuver, perhaps as a reflex response to venous engorgement. When the vagal efferent pathways are free and blood pressure rises after strain, the arterial pressor receptors reflexly cause bradycardia, overbalancing the fast rate that would otherwise result from venous engorgement.

Proc. Central Soc. Clin. Research 24:31, 1951.

Biochemistry

Allergic Renal Necrosis

The generalized Shwartzman reaction of hemorrhagic renal necrosis in rabbits usually follows two intravenous injections of Shear's *Serratia marcescens* toxin spaced twenty-four hours apart. Drs. Robert A. Good and Lewis Thomas of Minneapolis find that the renal damage is prevented by previous injections of nitrogen mustard. From 1.5 to 1.75 mg. of HN_2 per kilogram is completely protective if given seventy-two hours before the endotoxin, but not when administered within twenty-four hours of the first dose. Apparently HN_2 inhibits the Shwartzman reaction by suppression of bone marrow and elimination of circulating polymorphonuclear leukocytes. The inhibitory effect is abolished if femoral bone marrow is protected from effects of HN_2 by a clamp on the lower abdominal aorta.

Proc. Central Soc. Clin. Research 24:39, 1951.

Individualizing

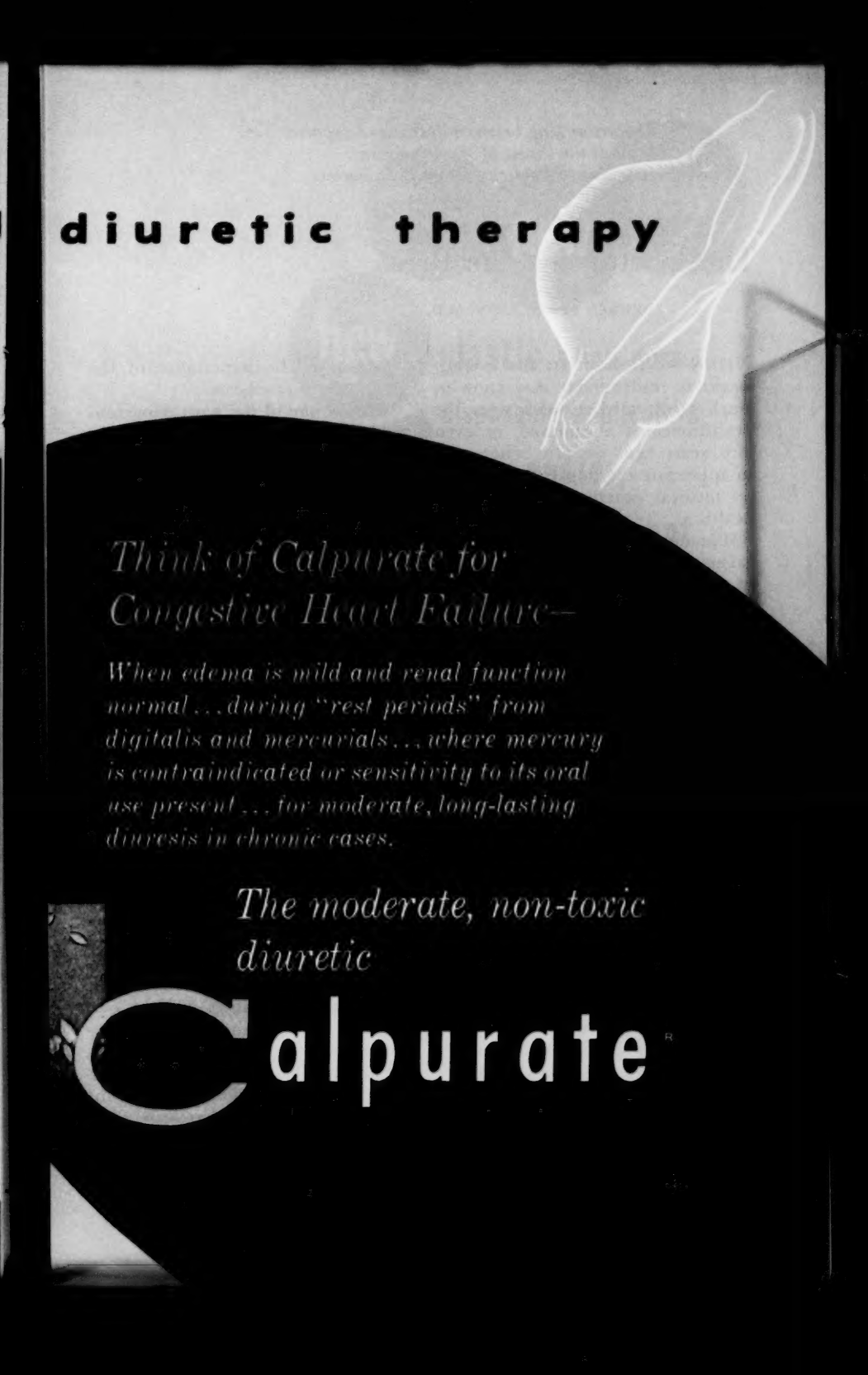
The most suitable diuretic—carefully selected for each edematous patient—will not only diminish invalidism... it will add greatly to the extension of life. It is the backbone of today's therapy, along with rest, digitalization and salt restriction.

Calpurate is the crystalline compound—theobromine calcium gluconate—distinguished for its moderate diuretic action and minimal toxicity. It is remarkably free from gastro-intestinal and other side-effects, and does not contain the sodium ion.

Calpurate is also helpful in other cardiac conditions because it stimulates cardiac output. *Calpurate with Phenobarbital* is useful in relieving anxiety and tension, as in cases of hypertension. Calpurate, supplied as Tablets (500 mg.) and Powder; Calpurate with Phenobarbital (16 mg.), as Tablets.

MALTBIE LABORATORIES, INC., NEWARK

Photomicrograph of Calpurate *hexagonal* crystals


diuretic therapy
Think of Calpurate for Congestive Heart Failure—
When edema is mild and renal function normal . . . during "rest periods" from digitalis and mercurials . . . where mercury is contraindicated or sensitivity to its oral use present . . . for moderate, long-lasting diuresis in chronic cases.
The moderate, non-toxic diuretic
Calpurate®

Understanding between doctor and reporter reduces the threat of sensationalism inherent in publicity on medical matters

The Doctor and the Press

REUBEN F. ERICKSON, M.D.

WHEN we realize that the average magazine reader today may know as much about medical science as the practitioner of a hundred, or even fifty years ago, we are better able to appreciate the impact of publicity on medical practice and on public health.

A mounting curiosity about medical science has led to a bumper crop of medical stories each year. Not all are good. If we classify a few of the problem stories we find:

First, there is the *sanctified quack* story, which gets written when a clever and smooth-talking faker finds a sufficiently gullible reporter. The story naively quotes the self-styled doctor on his own accomplishments.

The sanctified quack treatment is occasionally applied to cultists and exponents of fads like yoghurt and blackstrap molasses. Publication of these stories assures that the fad will attach itself to a certain number of credulous minds.

Second, there's the *don't worry any more* story, characterized by a florid style of reporting and a hearty clap on the back for all those who have suffered and now are to be relieved of all suffering. The writer of the DWAM story is ever-enthusiastic. Each new drug or surgical technic he hears about is immediately invested with the importance of the germ theory of disease!

This is one of the most dangerous of the wrong-way reporting methods, for it raises the hopes of thousands before the drug or technic has been properly tested and proved to be of therapeutic value—or before the drug is available in quantity, or the technic taught to physicians.

Third, there is the story that, after a promisingly truthful start, deteriorates into falsehood by reason of garbled or butchered transmission. This usually occurs in newspapers when someone less familiar with the subject than the writer attempts to shorten the story to fit the space requirements.

Fourth, there's the *tailoring of the facts to fit the theory* story, a practice that, fortunately, is becoming less frequent as more and more writers have become better informed about medical practice, ideals, ethics, and goals and, as a result, less prejudiced against the practitioners of medicine.

Nowadays the tailored-fact story is likely to concern itself with an out-of-focus view of doctor-hospital relationships, malpractice incidence, vivisection phases of research, fee-splitting, rebates, and other areas of the subject of medicine that have often

From Presidential address, Hennepin County, Minnesota, Medical Society. Bull. Hennepin County M. Soc. 22:550-559, 1951.

been irritated into ulceration by continued misunderstanding and misinterpretation.

Fifth in the classification is the modern fairly tale or *statistical myth* story, wherein a weak promise is supported by even weaker statistics. The writer "samples public opinion," which, in many cases, consists of jotting down his own opinion, seeing what a couple of other fellows at the Press Club have to say, and completing this cross section by asking a bartender or a waitress, in casual fashion, what he or she thinks about the subject.

Sometimes the facts and figures the writer uses are authentic enough, but he fails to point out that they apply to a period in the distant past.

The medical profession cannot afford to ignore the impact of any kind of medical information. If the public receives only one side of the picture, it is apt to accept that view. One of the most diabolically clever molders of public opinion that ever lived—the notorious Goebbels—has testified that even a lie, presented sufficiently often and to a sufficient number of people, will tend to wear down opposition and take on the aspects of truth.

Remember that and, for every falsehood, present the alternative—the truth. Better still, prevent falsehoods from taking shape in public print and thereby gaining, by that one process alone, the semblance of authenticity.

Primarily, all the five types of damaging reporting could be averted by a closer understanding and more cooperative working relationship between writers and medical men. We must not pout over past slurs and inaccuracies, we must not lock ourselves up behind doors of privileged secrecy to the extent that the public does not get the kind of information to which it is entitled. We must work honestly and helpfully with writers in an attempt to get more facts and less fiction before the American public.

The informed patient is a cooperative patient. He recognizes the doctor's diagnostic and therapeutic technics for the skilled measures that they are. He puts faith in his physician. He is aware that the level of health in the United States is the best in the world, that his doctor has been educated to high medical standards, and that medical boards and ethics committees keep a watchful eye on all doctors to be sure that the public is not subjected to inferior medical care.

"Make an appointment with my doctor for me."

A GOOD ANSWER TO MENOPAUSAL HYPERTENSION

TOLANATE

INOSITOL HEXANITRATE

Tolanate—inositol hexanitrate—has been found especially useful in the hypertension of the menopause, a condition so frequently complicated by obesity and by nervous irritability.

The vasorelaxant effect of a single 10 mg. dose of Tolanate is maintained over a period of four to six hours. By proper spacing of each individual dose, the continuous hypotensive action of Tolanate leads to sustained, day-long and well-into-the-night control of the blood pressure—with virtually complete freedom from "nitrite headache."

Tolanate with Phenobarbital is especially useful in the treatment of menopausal hypertension because, by the added sedative action, the unfavorable effect of menopausal anxiety and emotional lability on the hypertension is reduced.

Dosage: The average dose of Tolanate is one tablet (10 mg. of inositol hexanitrate) three or four times daily.

The average dose of Tolanate with Phenobarbital is one tablet (10 mg. of inositol hexanitrate and 16 mg. [¼ gr.] of phenobarbital) three of four times daily, the amount being limited by the degree of sedation desired.

C.S.C. Pharmaceuticals

A DIVISION OF COMMERCIAL SOLVENTS CORPORATION, 17 East 42nd St., New York, N. Y.

Let us continue to be alert, then, to the inherent threat of misinformation and sensationalism. Let's watch for the sanctified quack story, the don't worry any more article, the tailored fact, the statistical myth, and the foreshortened article that has lost its meaning.

When we find them, let's do everything in our power to rectify the mistakes. If it's a local story, have a straightforward talk with the person responsible. Point out the truth of the matter and the ways in which such misinformation can do damage. Offer your assistance or the assistance of your medical society in obtaining facts for future stories.

If it is a national story, the American Medical Association will undoubtedly be on the job, but if you feel that the publication is relatively obscure and may escape the attention of the AMA, take the time to write a letter to the Association, enclosing the offending article.

Medicine is a wonderful story. We need make no apology for the accomplishments of our profession. But neither can we expect that our interpreters—the press—or the public to which the press interprets medicine can *automatically* garner the knowledge and information we have to transmit. We must do our part. Doctors and researchers are the primary sources of medical news and must not be supplanted by quacks, charlatans, professional do-gooders, political opportunists, and others who seek to sway public opinion to the path of falsehood and evil.

Our Office Nurse

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 1 winner is

Stewart H. Jones, M.D.
Brookline, Mass.

Mail your caption to
The Cartoon Editor
Caption Contest
No. 3
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.

"Drr-raped, Miss White, 'Patient was placed in Trendelenburg and sterilely drr-raped.'"

Short Reports

Experimental Surgery

Prevention of Adhesions

Cortisone and corticotrophin delay formation of granulation tissue and hence are effective in preventing intraabdominal adhesions in animals. Massive adhesions produced in the small bowels of dogs and rats by sprinkling the mesentery with talcum do not appear if the animals are given cortisone or corticotrophin. A dose of 10 mg. of cortisone or 5 mg. of corticotrophin twice daily for ten to fourteen days from the time of operation is sufficient to prevent the adhesions and does not impair wound healing, find Drs. Schayel R. Scheinberg and Harry C. Salzstein of Harper Hospital, Detroit.

Arch. Surg. 63:413-420, 1951.

Radiology

Bismuth Putty for Shielding

Protection of healthy skin against roentgen radiation during treatment of dermatologic lesions is greater with putty composed of 84% bismuth subnitrate and 15% anhydrous wool fat than with the sheet lead usually employed. Comparisons by Drs. J. Walter Wilson of Los Angeles and Ralph Luikart II of Santa Barbara, Calif., show that the putty is 1/3 to 1/4 as radiopaque as the sheet lead. When properly used, the putty is as good a shield as 1 mm. of lead and much better than the 0.5 mm. commonly used. Chief drawback is that the material becomes sticky when warmed by too much handling or high atmospheric temperatures. In warm weather additional bismuth subnitrate powder should be added to counteract this tendency. If necessary the powder may be dusted lightly over the patient's skin and the surface of the putty.

Arch. Dermat. & Syph. 64:580-584, 1951.

Hematology

Plastic Bags for Blood

Stored blood deteriorates more slowly in plastic bags than in glass; otherwise changes are similar. Transfusions are entirely satisfactory after storage in plastic bags and no reactions are caused. Dr. R. O. Muether and associates of St. Louis noted a slight decline in hematocrit values in specimens three weeks old. The red cell count fell 100,000 to 400,000 per cubic millimeter and prothrombin activity dropped to 30 or 35% of former levels. Plasma calcium increased slightly and potassium fivefold, while sodium and sugar were reduced. Total protein and albumin-globulin ratio were unchanged.

Proc. Central Soc. Clin. Research 24:65-66, 1951.

SULFATRYL*

GRANULES

Insure a Fresh, Uniform Suspension of Meth-Dia-Mer Sulfonamides (1:1:1)

Dry, coral-pink granules of SULFATRYL require only addition of distilled water to make fresh, uniform, flavored suspension of Meth-Dia-Mer sulfonamides, buffered to pH 6.25.

SULFATRYL granules contain equal portions of three most effective sulfonamides. Addition of 60 cc. distilled water to the prescription bottle quickly makes 90 cc. of a smooth, absolutely uniform suspension.

Uniform composition is the problem most commonly encountered with ordinary triple-sulfonamide suspensions. The solids may settle out, become impacted, virtually impossible to resuspend. Failure to shake the dispensing bottle well may result in inaccurate as well as inadequate doses. SULFATRYL granules overcome this basic problem. Each 90-cc. prescription is made up freshly, by adding 60 cc. of distilled water to the 42 Gm. of coral-pink, dry granules, which go at once into *fresh*, uniform suspension for immediate use.

Composition of SULFATRYL follows the Meth-Dia-Mer Sulfonamides (1:1:1) ratio with sodium citrate as a buffer. Each 5-cc. teaspoonful of the suspension contains 0.5 Gm. of an equal-parts mixture of the three sulfonamides:

Sulfadiazine	0.167 Gm.
Sulfamerazine	0.167 Gm.
Sulfamethazine	0.167 Gm.
Sodium citrate	0.500 Gm.

Sugar and flavoring agents, q.s.

Literature on request.

*TRADEMARK

HENRY K. WAMPOLE & CO. • PHILADELPHIA 23, PA.
INCORPORATED
MANUFACTURING PHARMACISTS SINCE 1872

MAXIM [illegible] *with*

[illegible]

Endocrinology

Adrenal Action on Arthritic Joints

Adrenocortical steroids not only suppress inflammation but restore damaged connective tissue. Rheumatoid arthritis increases the white cell content of joint fluid and impairs viscosity and clotting power of mucin. During systemic administration of ACTH and cortisone, Dr. Ivan F. Duff and associates of Ann Arbor, Mich., observed rapid reduction of polymorphonuclear leukocytes and improvement of mucin quality. Daily injections of 10 to 25 mg. of cortisone into the joint had similar effects

Proc. Central Soc. Clin. Research 24:29, 1951.

Surgery

Aortic Grafts

Coarctations of the aorta beyond the scope of excision and primary anastomosis may be repaired with homologous arterial grafts. Fresh autopsy material preserved in a nutrient Tyrode's solution at low temperatures has been utilized by Dr. Robert E. Gross of Harvard University, Boston, for 19 patients. Grafts up to 7.5 cm. in length and stored as long as six weeks were successfully used. Results were excellent for 14 of the 17 survivors, fair or satisfactory for 2, and unsatisfactory for 1. Renal failure and uremia were responsible for the 2 deaths, both of which happened on the fourth postoperative day. Aneurysm, rupture of the grafted segment, or thromboembolism did not occur. Some of the patients have been observed for three years.

Ann. Surg. 134:753-768, 1951.

Neurology

Treatment of Epilepsy

Ammonium chloride is a valuable nontoxic addition to the common anticonvulsant drugs. For 10 patients, 7 refractory to the usual remedies and 3 without adequate previous treatment, epileptic seizures were reduced and encephalograms improved by therapy with the drug. Dilantin, phenobarbital, and other compounds were administered as required. Drs. Fritz Kant and Warren E. Gilson of the University of Wisconsin, Madison, chose ammonium chloride for a dehydrating and acidifying influence because convulsions are precipitated in many persons by water storage or alkalosis. Adults received enteric-coated capsules in 1-gm. doses four times daily and children 0.5 gm. four times a day. The most effective regimen was not determined.

Wisconsin M. J. 50:1095-1098, 1951.

Dermatology

Treatment of Hyperhidrosis

Prantal is effective in some cases of hyperhidrosis. The drug is a quaternary amine (N,N-dimethyl-4-pyridylidene-1,1-diphenylmethane methylsulfate). Of 15 patients with excessive sweating, 8 received satisfactory benefit from administration of 200 to 400 mg. of Prantal daily in four divided doses. According to Dr. Lawrence M. Nelson of Santa Barbara, Calif., while the effects of Prantal are not consistently superior to those of Banthine, unfavorable reactions such as blurred vision, pupillary dilatation, or constipation do not occur.

J. Invest. Dermat. 17:207-208, 1951.

through i-n-t-e-r-r-u-p-t-e-d RUTOL therapy

Goodman and Gilman* stress the importance of assuring continuous response to nitrite medication by: (1) "Employing the smallest effective dose to initiate therapy, so that . . ." (2) "the dosage may be increased as tolerance develops" and (3) "cessation of administration of nitrites for several days" to reestablish "the original degree of susceptibility . . ."

RUTOL

Suggested Rx Cyclic Regimen

1 One Rutol Tablet after each meal and at night, for 2 weeks.

2 Two Rutol Tablets q.i.d., for 1 week.

3 Use alternate medication for two weeks, returning to Rutol as before.

(Pitman-Moore Brand of Rutin, Phenobarbital and Mannitol Hexanitrate)

—combines mannitol hexanitrate in **suggested** small dosage, 16 mg. (¼ gr.); phenobarbital, 8 mg. (⅛ gr.)—sufficient to be effective without danger of over-sedation; rutin, 10 mg. (⅙ gr. approx.) to help safeguard against capillary fragility.

PITMAN-MOORE COMPANY
Pharmaceutical and Biological Chemists
Division of Allied Laboratories, Inc.
Indianapolis 6, Indiana

*Goodman, L., and Gilman, A.: *The Pharmacological Basis of Therapeutics*, New York, The Macmillan Co., 1941.

Oncology

Ultrasound and Cancer

High frequency sound waves are relatively ineffective in the treatment of transplanted ependymomas in mice. Dr. Richard J. Brzustowicz and associates of the Mayo Clinic, Rochester, Minn., find that although definite tissue changes and ulceration occur after ultrasonic treatment, only an occasional small tumor is actually destroyed. Histologic changes are noticeable twenty-four hours after exposure to 800 kilocycles per second for seventy-five seconds. Failure to destroy the tumors completely may result from the fact that the area affected by the sound is cone shaped and does not encompass the whole of a large tumor. Small, readily accessible tumors lying subcutaneously might be amenable to this treatment.

Proc. Staff Meet., Mayo Clin. 26:447-454, 1951.

Gastroenterology

Cause of Ulcerative Colitis

Connective tissue lesions in the bowel strongly indicate that ulcerative colitis is a collagen disease. The mechanism is not clear but may be related to hypersensitivity, in the opinion of Dr. Milton D. Levine and associates. Confirmatory are so-called complications, including arthritis, erythema nodosum, and glomerulitis. Biopsy samples were examined at the University of Chicago with the aid of special technics, including phase microscopy. Ulcerative colitis occurs in two forms. One is primarily vasculitis. In the other, the type investigated, basement membrane of epithelial cells is altered, epithelium sloughs away, and abscesses form within mucosal crypts. Homogeneous ground substance of the basement membrane is virtually absent and reticulum often fragmented. Where mucosa separates from connective tissue, intervening space contains water-soluble metachromatic material. During successful ACTH therapy, the ground substance returns in some areas. The basement membrane remains intact in amebiasis, lymphopathia venereum, and other conditions involving inflammation and necrosis of the bowel. Apparently, the basement membrane is a dynamic element that does much more than maintain continuity of the epithelium and submucosal connective tissue.

Science 114:552-553, 1951.

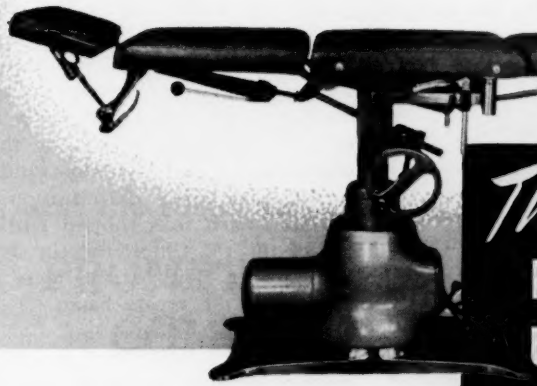
Ophthalmology

Neomycin in Eye Diseases

Solutions of neomycin containing 40 mg. per cubic centimeter of distilled water can be safely employed for drop instillation into the human eye. This concentration will penetrate through the cornea into the anterior segment. Penetration is increased if corneas are abraded. Concentrations of 2.5 mg. per cubic centimeter can be injected into the anterior chamber of the rabbit's eye without causing permanent tissue change, report Dr. Adolph W. Vogel and associates of the University of Pennsylvania, Philadelphia. Higher concentrations given by injection may damage the corneal endothelium, the permeability of vascular structures of the anterior segment, the lens, and the retinal vascular system.

Am. J. Ophth. 34:1357-1362, 1951.

Your Professional Skill Deserves the Finest . . .



The New RITTER UNIVERSAL TABLE

Enjoy the feeling of working with fine equipment. The new Ritter Universal Table, Model B, Type 2 offers you the ultimate in ease of operation. All adjustments are within easy reach of hand or foot with adjustment to any position accomplished quickly and effortlessly. This table is professional in appearance, yet equipped to meet the varying needs of the general practitioner, or the exacting requirements of specialists in such fields as gynecology, proctology, or urology.

The Ritter Universal Table has a motor-driven hydraulically operated base which raises patients rapidly and smoothly. Elevation range from 26½" - 44½", table top to floor. Rotates 180° on a sturdy base which prevents accidental tilting. Overall length, of table with both headrest and knee rest extended is 80" by 23" wide. Patients enjoy the comfort of air foam sponge rubber cushions covered with vinyl coated nylon fabrics.

Ask your Ritter dealer for more information about the seven models in the *complete* new line of Ritter Multi-Purpose Tables.

FOR ADVANCED EQUIPMENT LOOK TO

Ritter

COMPANY INCORPORATED
RITTER PARK, ROCHESTER 3, N.Y.

Research

Leukemia Award

A prize of $1,000 is being offered for a paper which contributes significantly to the knowledge and treatment of leukemia. Details of the contest will be furnished by the Robert Roesler de Villiers Foundation, Inc., 417 Park Avenue, New York 22, N.Y.

Neurosurgery

Dural Sinus Venography

Direct injection of contrast medium into the dural sinuses is of value in diagnosis and study of intracranial diseases, particularly obstruction of the major dural venous sinuses by neoplasm or thrombus. Dr. Bronson S. Ray and associates of the New York Hospital–Cornell Medical Center, New York City, employ rapid injection of 15 cc. of 35% Diodrast or 37% Neo-Iopax through a ureteral catheter introduced into the anterior third of the superior sagittal sinus. Usual roentgenographic technic is observed as for cerebral arteriography, with 0.5-second exposures at 40 to 100 milliamperes and kilovoltage appropriate to the head's thickness. Lateral and anteroposterior views are used. The procedure is valuable in showing whether the adjacent venous sinus is occluded in cases of neoplasm and for studying pseudomotor cerebri. Retrograde injection of 25 cc. of 70% Diodrast or 75% Neo-Iopax by catheter in the basilic vein of the arm, passed upward to the superior bulb of the internal jugular vein, may also give information on obstruction.

Radiology 57:477-486, 1951.

Dermatology

Sensitivity to Chloromycetin

Allergic contact dermatitis may result from continued topical application of 1% Chloromycetin ointment. Dr. Harry M. Robinson, Jr., and associates of the University of Maryland, Baltimore, report 2 cases of sensitivity among 70 patients treated with the antibiotic for various pyodermas. The reactions appeared after use of the antibiotic for three weeks in one case and fifty-two days in the other. After the eruption developed patch tests showed sensitivity for the 1% Chloromycetin cream and powder. The patients were not allergic to the cream base.

J. Invest. Dermat. 17:205-206, 1951.

Gastroenterology

Bowel Obstruction

Incarcerated hernia with no symptoms may become strangulated and rapidly gangrenous at any time. The speed of deterioration is probably caused by unnoticed prior infection, believe Dr. Harold Laufman and associates of Northwestern University, Chicago. When slow intestinal obstruction was produced in dogs with binding tape, lymphatic vessels in the bowel wall were soon greatly dilated. Lining cells were invaded by bacteria long before color changes indicated circulatory embarrassment. After sudden superimposed strangulation, loops became extensively necrotic and 75% perforated. However, initial quick strangulation caused only punctate rupture in 25% of the animals.

Arch. Surg. 63:511-519, 1951.

...and the result is

PROMPT, COMPLETE COUGH RELIEF

Mercodol with Decapryn provides:

. . . A selective cough-controlling narcotic[1] that stops wracking cough promptly, but does *not* interfere with the cough reflex your patients *need* to keep passages clear.

. . . An effective bronchodilator[2] to relax plugged bronchioles.

. . . An expectorant[3] to liquefy secretions.

. . . A long-lasting, low-dosage antihistamine[4] for the cough with a specific allergic basis.

. . . And the result is *prompt, complete cough relief.*

MERCODOL® with DECAPRYN

(an exempt narcotic)

Merrell
1828
New York • CINCINNATI • Toronto

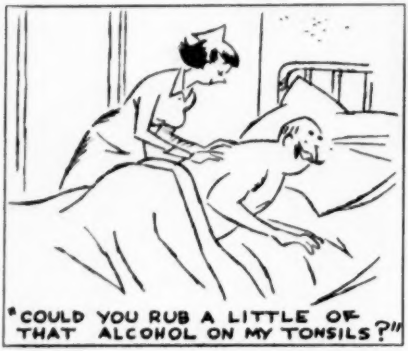
Each 30 cc. contains—

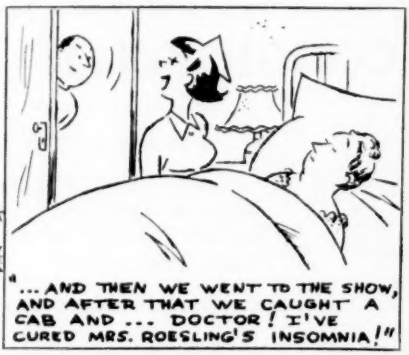
1. Mercodinone ®	10.0 mg.
2. Nethamine ®	0.1 Gm.
3. Sodium citrate	1.2 Gm.
4. Decapryn Succinate	36.0 mg.

Trade-mark "Decapryn"

Nellie Nifty, R.N.

by kaz





Corticotropin

SOLUTION WILSON

Unique Stable Solution of **ACTH** *Derived from the Anterior Pituitary*

for subcutaneous, intramuscular and intravenous administration

SAVES DOCTOR'S TIME

STABLE SOLUTION

—Stable at room temperature for more than 1½ years without perceptible loss of potency
—Standardized in U.S.P. units according to recommendation of A.M.A. Council on Pharmacy and Chemistry
—A true solution—not a suspension

READY FOR IMMEDIATE USE

—Does not require aqueous reconstitution
—Eliminates the inconvenience of mixing individual doses
—Permits greater speed and convenience of administration

NO MIXING, NO HEATING, NO SHAKING

—In multiple dose vial—ready for immediate use
—Required dosage is drawn directly from the vial
—No aqueous reconstitution is necessary

SAVES PATIENT'S MONEY

ECONOMICAL

—Rigid economy achieved by The Wilson Laboratories' "farm to pharmacy" control
—Optimal therapeutic effect assured by standardization in U.S.P. units
—Relatively low cost gained by economical new methods of preparation and purification

NO WASTE

—Controlled stability allows complete utilization over long periods of time
—Stable solution in multiple dose vial insures against waste of discarding unused portions

WELL-TOLERATED

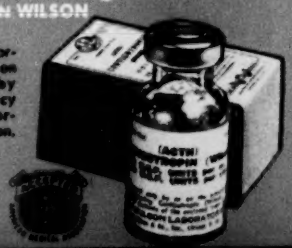
—Unique process of purification provides a well-tolerated stable solution of ACTH
—Careful control guarantees sterility, potency and stability
—Repeated animal and chemical assays assure maximal potency and purity

FOR REQUIRED EFFECTIVENESS AT MINIMUM COST

Corticotropin
SOLUTION WILSON

The Wilson Laboratories, a division of Wilson & Co., Inc.—a leader in the meat processing industry—have been pioneers in the development of fine pharmaceuticals of animal origin for more than 33 years

All claims made for Corticotropin Solution Wilson have been approved by the Council on Pharmacy and Chemistry of the American Medical Association.



THE WILSON LABORATORIES
division of Wilson & Co., Inc.

ACTH and cortisone affect carbohydrate metabolism. Hyperglycemia and glycosuria may occur in nondiabetic patients and the treatment may unexpectedly reveal latent or mild diabetes. The insulin requirements of diabetics are increased so that their status must be followed with great care.

To avoid such clinical surprises and simplify clinical control, ACTH or cortisone therapy is profitably *preceded, accompanied* and *followed* by routine testing for urine-sugar with *Clinitest* Reagent Tablets. They provide a rapid, reliable and convenient method—easily used by both physician and patient.

CLINITEST

BRAND • REG. U.S. PAT. OFF.

REAGENT TABLETS

for detection of urine-sugar

You can assure regular, reliable urine-sugar analysis by prescribing the Universal Model Set (No. 2155). Available at all pharmacies at $1.50.

AMES
COMPANY, INC.
ELKHART, INDIANA

Ames
Company of
Canada, Ltd.,
Toronto

C-1

Washington Letter

Health Field Is Happy Hunting Ground for Fact Finders

Surveys designed to prove that the country needs—or doesn't need—certain new federal health laws are crisscrossing each other in a pattern of mild confusion. Some are about ready for public announcement. A few more will be finished later in the year, providing the sponsors don't grow weary. A great many others, if precedent is any guide, will twist and weave through statistics for a few more years, then quietly expire.

Most promising, probably, is that being prepared by Brookings Institution, a private organization with close links to the federal government and a reputation for accuracy and objectivity. The Brookings survey will concentrate on the extent of health services provided by government agencies, but will also give a broad picture of health needs and available facilities. This study has been under way for several years. It will be finished possibly this month, and may have some influence on Congress. Most of the other cross-section investigations are pin-pointed toward the specific field of hospital costs, maternity and infant care, and medical care for the indigent.

The Committee on Financing of Hospital Care has begun the first phase of a detailed study of hospital costs. Its objective—not a simple one—is to "provide high quality hospital care at the lowest possible cost to the public." North Carolina will be the key state in preliminary work because it has readily accessible information on health problems. On the basis of facts developed in North Carolina and a few other states, the committee hopes to be able to make recommendations that can be applied elsewhere.

The hospital study, like the Brookings survey, has no governmental connections, a factor which may make its findings more palat-

(Continued on page 178)

DEXTRO AMPHETAMINE SULFATE	5 mg
CALCIUM	242 mg
COBALT	0 1 mg
COPPER	1 mg
IODINE	0 15 mg
IRON	3 33 mg
MANGANESE	0 33 mg
MOLYBDENUM	0 2 mg
MAGNESIUM	2 mg
PHOSPHORUS	187 mg
POTASSIUM	1 7 mg
ZINC	0 4 mg
VITAMIN A	5000 U S P Units
VITAMIN D	400 U S P Units
THIAMINE HYDROCHLORIDE	2 mg
RIBOFLAVIN	2 mg
PYRIDOXINE HYDROCHLORIDE	0 5 mg
NIACINAMIDE	20 mg
ASCORBIC ACID	37 5 mg
CALCIUM PANTOTHENATE	3 mg

ROBRIC
Rx

able to the medical and hospital professions. It is being financed by a half-million dollar fund, raised privately.

The Medical Research Information Exchange, which is tied in with National Research Council, has almost finished a six-year study of medical research financing. It will be the product mainly of letter writing and research and analyses and perhaps will give a clearer picture of the financial interrelationships of medical schools and medical research. Some observers have claimed that medical schools would not be so far in the red if they were not wedded to costly research programs.

Pointed in the same direction is a proposed survey sponsored by American Medical Association. AMA's last clinical session approved a study to bring to light:

1] The sources of funds, public and private, now available for medical research

2] The amount of free time donated to medical research

3] Fields of research receiving funds, and in what proportion.

Some factions of the AMA obviously hope the study will show that research is an unreasonably heavy financial burden on too many medical schools. The association's policy calls for federal grants to help medical schools construct and equip new buildings, but not to maintain them.

AMA also is trying to put together information on the financial condition of dependents of military personnel, particularly to learn whether federal funds are needed to pay for maternity and infant care within this group. This study is directed partly toward checking up on data supplied to U. S. Children's Bureau and Congress by National Red Cross which were said to show a need for federal action.

If the AMA concludes from the survey that federal help is not needed now, that will hardly be the last of it. Children's Bureau is continuing to collect and analyze inquiries from dependents, and will be prepared to argue for new federal medical programs.

A relatively new starter in the health survey business is the Senate Health Subcommittee under Sen. Lehman of New York, who is acutely aware of all the unmet needs in the social and medical fields.

Mostly by letter writing and report studying, the subcommittee staff also is attempting to run down the elusive facts on military dependents. If it finds what it wants—and possibly even if it doesn't—the committee is prepared to call hearings very shortly on legislation proposing medical help for dependents. One proposal is to have the federal government buy voluntary health insurance contracts for the families of enlisted men.

An American Legion hospital survey also is moving slowly toward a tentative deadline of mid-1952. Like several of the other studies, this has a specific objective: to show localities where, in the Legion's opinion, there are enough veterans and enough professional personnel to warrant the construction of new Veterans Administration hospitals.

Also nearing the public-release stage is a study of the constantly

(Continued on page 182)

The Right Combinations in

BILE ACID THERAPY

Optimum purity of DOXYCHOL-K and DOXYCHOL-AS enables the physician to obtain predictable end results in bile acid therapy.

Both products represent truly therapeutic formulae, since the ingredients of each exert specific action, and are present in full therapeutic amounts.

DOXYCHOL-AS is indicated where initial treatment requires hepatic stimulation, plus spasmolysis and sedation.

DOXYCHOL-K is ideal for continuation therapy over prolonged periods. It contains no antispasmodic nor sedative, but provides the same quantities of unconjugated bile acids with identical hydrocholeretic effect.

DOXYCHOL-K TRADEMARK . . . Each tablet contains: Ketocholanic acids, 3 gr. (derived from oxidized pure cholic acid, and containing approximately 90% dehydrocholic acid); Desoxycholic acid, 1 gr.

DOXYCHOL-AS TRADEMARK . . . Each tablet contains: Phenobarbital, 1/8 gr. (Warning: May be habit forming); Atropine Sulfate, 1/400 gr.; Hyoscyamine Hydrobromide, 1/400 gr.; Desoxycholic Acid, 1 gr.; Ketocholanic Acids, 3 gr. (derived from oxidized pure cholic acid, and containing approximately 90% Dehydrocholic Acid).

Both products available in bottles of 100, 500 and 1000 tablets.

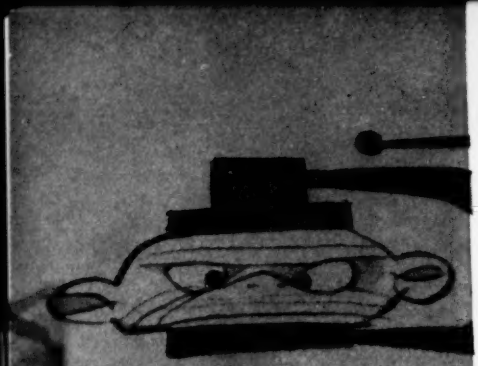
Write Dept. 20M for literature

BREON

George A. Breon & Company

Manufacturing Pharmaceutical Chemists

1450 BROADWAY NEW YORK 18, N. Y.



pressure

When

diet

work

worry

emotional disturbances

pressure, diet, work, worry,

emotional disturbances, visceroneurosis

cause ***Nervous Indigestion*** . . .

BENTYL

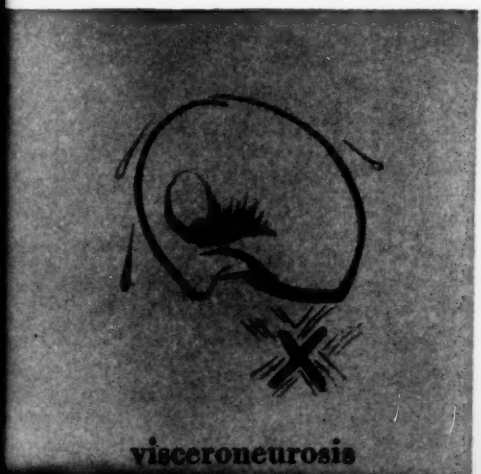
offers effective, comfortable, sustained relief from pain, cramps, general discomfort due to functional gastrointestinal spasm. In clinical studies[1, 2, 3] BENTYL gave gratifying to complete relief in 308 of 338 cases, yet was ". . . virtually free from undesirable side effects."[3]

EACH CAPSULE OR TEASPOONFUL SYRUP CONTAINS:

BENTYL. . . . . **10 mg.**
For safe, double-spasmolysis

BENTYL. . . . . **10 mg.**
with **PHENOBARBITAL**. . . **15 mg.**
When synergistic sedation is desired

Dosage—ADULTS: 2 capsules or 2 teaspoonfuls syrup 3 times daily, before or after meals. If necessary, repeat dose at bedtime. IN INFANT COLIC: ½ to 1 teaspoonful syrup 3 times daily before feeding.[4]



Merrell
1828

New York • CINCINNATI • Toronto

1. Hock, C. W.: J. Med. Assn. Ga. 40:22, 1951 • 2. Hufford, A. R.: J. Mich. St. Med. Soc. 49:1308, 1950 • 3. Chamberlin, D. T.: Gastroenterology 17:224, 1951 • 4. Pakula, S. F.: To be published •

Trade-mark "Bentyl" Hydrochloride

acute problem of how to bring medical care to people who can't afford to pay for it. Sponsoring this study are the American Public Health Association and American Public Welfare Association. A joint committee already has worked up a draft report, but the final document is not quite ready. One conclusion to be strongly emphasized will be that the problem of medical care for the indigent cannot be separated from the greater problem of making medical care more accessible to all the population.

Unfortunately, whatever conclusions are reached probably will have no effect at all on Congress. This is election year and the session will be short and jammed with national defense work. Lawmakers, all up for re-election, will not want to vote any appropriations they don't have to vote.

Washington Notes

VA's new regulation setting a $125 per month cutoff point for veterans seeking domiciliary care is not much of a restriction for a man who wants the free service. If the veteran can show he is contributing "in whole or in part" to the care of a mother, father, wife, or child, the $125 limit does not apply. Involved are non-service connected cases only.

Increased retail prices for drugs are in prospect through operations of the Capehart amendment. Under it, drug manufacturers are allowed to recalculate costs, apply for increases, and put the new prices into effect as soon as the application has been posted by registered mail. OPS will interfere only if subsequently it determines that a manufacturer has misrepresented his costs. Increases may be passed on down to the retail druggist.

FSA's proposal for hospitalization of certain categories of persons over 65 is running into more difficulty. One suggestion is to blanket beneficiaries under voluntary plans, with the federal government paying the cost. However, services under local plans vary so greatly that it would be difficult to form an acceptable federal pattern.

Military and civilian production officials have warned that there can be no spurt in hospital construction, at least until the last three months of the year. New steel capacity will not be available until that time. Copper, these officials emphasized, will be scarce as long as there is a defense program.

Military medical officials are not satisfied that joint staffing of hospitals by the three services will work out. Disciplinary and personnel difficulties and conflicting bookkeeping systems outweigh any strictly

"Well, well. I think I hear the school bell!"

FOR THE FIRST TIME

Crystamin* '60'

THE MOST POTENT ANTIANEMIC PRINCIPLE

GREATER PATIENT COMFORT

4 x U.S.P.
MAXIMUM B_{12}
STRENGTH

SMALLER INJECTIONS · ECONOMY

A sterile aqueous solution for injection, containing 60 micrograms of crystalline vitamin B_{12} per cc. in 5 cc. vials.

Also available: Crystamin containing 30 micrograms of B_{12} per cc. in 10 cc. vials.

*Crystamin—The Armour Laboratories Brand of Highly Purified Crystalline Vitamin B_{12}

THE ARMOUR LABORATORIES
CHICAGO 11, ILLINOIS

—world-wide dependability

PHYSIOLOGIC THERAPEUTICS THROUGH BIORESEARCH

professional advantages, in their opinion.

Joint utilization of military hospitals, however, seems to have won universal approval. Even those most critical of the new system at the start now admit that it is effective and desirable from a professional standpoint.

Extensive maneuvering was required to correct a report that the Federal Civil Defense Administration had recommended mass immunization for tetanus, in anticipation of atomic bombing. Actually, CDA asked a national meeting of public health officers to look into the suggestion but had not recommended it. The health officers decided that such immunization would entail a waste of personnel and energies badly needed in other civil defense operations.

Status of Health Bills

Principal proposals in the health fields at the opening of Congress in January

S.337. Federal aid to medical, dental, and nursing education. On Senate calendar. H.R.2707. Similar to S.337. In House committee.

H.R.910. Federal aid to nursing education. Hearings but no action.

H.R.2152. Federal aid for the construction and enlargement of medical schools. In committee.

H.R.2511. Commission for the study of medical education. In committee.

S.445. Federal aid to local public health units. Passed Senate but no House action. H.R.274. Similar to S.445. Hearings but no action.

S.1245 and H.R.4176. Emergency Maternity and Infant Care program. In committees. S.2337. EMIC program plus hospitalization of military dependents. In committee. H.R.342. Hospitalization and medical care of military dependents. In committee.

H.R. 5426. To rewrite the military reserve component laws. Passed House but no Senate action.

it's the *healing* influence

of **cod liver oil**

that makes the great difference in

DESITIN®

hemorrhoidal

SUPPOSITORIES

the hemorrhoidal patient may sit, move and walk in greater comfort as Desitin Hemorrhoidal Suppositories with Cod Liver Oil act promptly to...

- **relieve pain and itching**
- **minimize bleeding**
- **reduce congestion**
- **guard against trauma**
- **promote healing** by virtue of their contents of high grade crude Norwegian cod liver oil, rich in vitamins A and D and unsaturated fatty acids (in proper ratio for maximum efficacy).

Prescribe Desitin Hemorrhoidal Suppositories in hemorrhoids (non-surgical), pruritus ani, uncomplicated cryptitis, papillitis, and proctitis.

Composition: crude Norwegian cod liver oil, lanolin, zinc oxide, bismuth subgallate, balsam peru, cocoa butter base. No narcotic or anesthetic drugs to mask rectal disease. Boxes of 12 foil-wrapped suppositories.

Send for **samples**

DESITIN CHEMICAL COMPANY ●

70 Ship Street • Providence 2, R. I.

H.R.348. Barbiturate control under federal narcotic laws. Hearings but no action. H.R.5718. National Drug Commission. In committee.

S.1875. Government loans to cooperative and nonprofit health groups. In committee.

H.R.27 and H.R.54. National Compulsory Health Insurance. In committee. H.R.136. Committee to study health insurance. In committee.

S.1140, H.R.3305, and H.R.3688. Independent Department of Health. In committee.

H.R.3021. Social Security Act amendment to provide insurance for the totally disabled. In committee. H.R.4943. Extension of Social Security benefits to dentists. In committee.

H.R.313. Construction of 16,000 additional VA beds. Passed House, no Senate action.

S.1235. Authorization for chiropractic care of veterans. In committee. H.R.1368. Authorization for chiropractors in VA Department of Medicine and Surgery. In committee.

H.R.14 and 5 similar bills. Allowance of increase in tax deductions for medical care costs. In committee.

H.R.35 and 13 similar bills. Creation of an independent agency on physically handicapped. In committee.

S.1328. Survey of sickness. Hearings but no action.

H.R.238 and 9 similar bills. Creation of a committee on aging. In committee.

"Mrs. Beever would like to discuss her symptoms if you are not doing anything, dear."

Modern sectionals...

designed with your reception room in mind!

Stools

Chairs

Desks

Here's quiet elegance and luxury for your office...with the glowing beauty of new hand-finished Royal Satin Chrome accenting the slim grace of smart square tubing. Royal sectional chairs are responsive to any arrangement—use them settee fashion, around corners, back to back, or individually. In every way, they reflect your excellent taste.

Royal . . . your only single source for over 150 metal furniture items.

ROYAL METAL MANUFACTURING CO.

175 North Michigan Avenue, Dept. 112 • Chicago 1

New York • Los Angeles • Michigan City, Ind.
Warren, Pa. • Preston and Galt, Ontario

Royal

metal furniture since '97

ROYAL METAL MFG. CO.
175 N. Michigan Ave., Dept. 112 Chicago 1

Please send me a free copy of your new Royal catalog.

Name_____

Address_____

City_____ Zone____ State____

Current Books & Pamphlets

This catalogue is compiled from all available sources, American and foreign, to insure a complete listing of the month's releases.

Medicine

MEDICAL AND PHYSICAL DIAGNOSIS *by* Samuel A. Lowenberg. 8th ed. 1,302 pp., ill. F. A. Davis Co., Philadelphia. $13.50

LEHRBUCH DER DIFFERENTIALDIAGNOSE INNERER KRANKHEITEN *by* Max Matthes *and* Hans Curschmann. 13th ed. 815 pp., ill. Springer-Verlag, Berlin. 42 DM.

LA MÉDICINE D'URGENCE: SYMPTÔMES, DIAGNOSTIC, TRAITEMENT IMMÉDIAT, FORMULAIRE *by* C. *and* J. Oddo. 9th ed. 782 pp. G. Doin & Co., Paris. 2,400 fr.

ANATOMICAL CHARTS FOR RECORDING TUMOR SITES. Charts of 15 body regions. Picker X-Ray Corp., White Plains, N.Y. 30¢

ARTHRITIS: WHAT YOU CAN DO ABOUT IT *by* Robert Ducharme Potter. 239 pp. Dodd, Mead & Co., New York City. $2.75

LES PRINCIPES DES ANATOXINES ET SES APPLICATIONS *by* Gaston Ramon. 230 pp. Masson & Co., Paris. 800 fr.

TYPHOID AND PARATYPHOID B CARRIERS AND THEIR TREATMENT: EXPERIENCES FROM WESTERN NORWAY *by* Thomas Martin Vogelsang. 368 pp., ill. University of Bergen, Norway. 15 kr.

Hematology

PROTHROMBIN DEFICIENCY *by* Rosemary Biggs. 93 pp., ill. Charles C Thomas, Springfield, Ill. $2.50

A COLOR ATLAS OF MORPHOLOGIC HEMATOLOGY WITH A GUIDE TO CLINICAL INTERPRETATION *by* Geneva A. Daland; *edited by* Thomas Hale Ham. 74 pp., ill. Harvard University Press, Cambridge, Mass. $5

HANDBOOK OF DISEASES OF THE BLOOD *by* Alfred Piney. 213 pp., plates. Harvey & Blythe, London. 21*s*.

Psychiatry

THE IMAGE AND APPEARANCE OF THE HUMAN BODY: STUDIES IN THE CONSTRUCTIVE ENERGIES OF THE PSYCHE *by* Paul Schilder. 353 pp. International Universities Press, New York City. $4.50

SYMBOLIC REALIZATION: A NEW METHOD OF PSYCHOTHERAPY APPLIED TO A CASE OF SCHIZOPHRENIA *by* Marguerite A. Sechehaye; *translated by* Barbrö Würsten *and* Helmut Würsten. 184 pp., ill. International Universities Press, New York City. $3.25

A DOCTOR'S REPORT ON DIANETICS: THEORY AND THERAPY *by* Joseph A. Winter. 227 pp., ill. Julian Messner, New York City. $3

Anatomy

LA TRACHÉE ET LES BRONCHES CARTILAGINEUSES: STRUCTURE ET FONCTIONNEMENT DES DISPOSITIFS MUSCULAIRES ET ÉLASTIQUES *by* M. Bariéty, J. Paillas, *and* M. Levy. 237 pp., ill. Masson & Co., Paris. 1,500 fr.

PRIMARY ANATOMY *by* Harry Arthur Cates. 2d ed. 344 pp., ill. Williams & Wilkins Co., Baltimore. $6

CUNNINGHAM'S TEXT-BOOK OF ANATOMY *edited by* James Couper Brash. 9th ed. 1,604 pp., ill. Oxford University Press, New York City. $14

AN ATLAS OF ANATOMY BY REGIONS *by* John Charles Boileau Grant. 3d ed. 637 plates. Williams & Wilkins Co., Baltimore. $12

CHRONOLOGY OF OPHTHALMIC DEVELOPMENT: AN OUTLINE SUMMARY OF THE ANATOMICAL AND FUNCTIONAL DEVELOPMENT OF THE VISUAL MECHANISM BEFORE AND AFTER BIRTH *by* Arthur H. Keeney. 32 pp. Charles C Thomas, Springfield, Ill. $2

Neurology

BIBLIOGRAPHY OF ELECTROENCEPHALOGRAPHY, 1875-1948 *edited by* Mary A. B. Brazier. 178 pp. International Federation of Electroencephalography and Clinical Neurophysiology, Montreal, Que. $5

FUNCTIONAL NEURO-ANATOMY INCLUDING AN ATLAS OF THE BRAIN STEM *by* A. R. Buchanan. 2d ed. 323 pp., ill. Lea & Febiger, Philadelphia. $7.50

PHYSIOPATHOLOGIE DU SYSTÈME NERVEUX *by* Paul Cossa. 3d ed. 960 pp., ill. Masson & Co., Paris. 2,300 fr.

CAUSALGIA *by* Frank H. Mayfield. 70 pp., ill. Charles C Thomas, Springfield, Ill. $2.25

Nutrition

PROTEIN AND AMINO ACID REQUIREMENTS OF MAMMALS *edited by* Anthony A. Albanese. 155 pp., ill. Academic Press, New York City. $4

HANDBOOK OF NUTRITION: A SYMPOSIUM, PREPARED UNDER AUSPICES OF THE COUNCIL ON FOODS AND NUTRITION, AMERICAN MEDICAL ASSOCIATION. 2d ed. 717 pp. Blakiston Co., Philadelphia. $4.50

TEACHING BETTER NUTRITION: A STUDY OF APPROACHES AND TECHNIQUES *by* Jean A. S. Ritchie. 148 pp., ill. Columbia University Press, New York City. $1.50

Physical Therapy

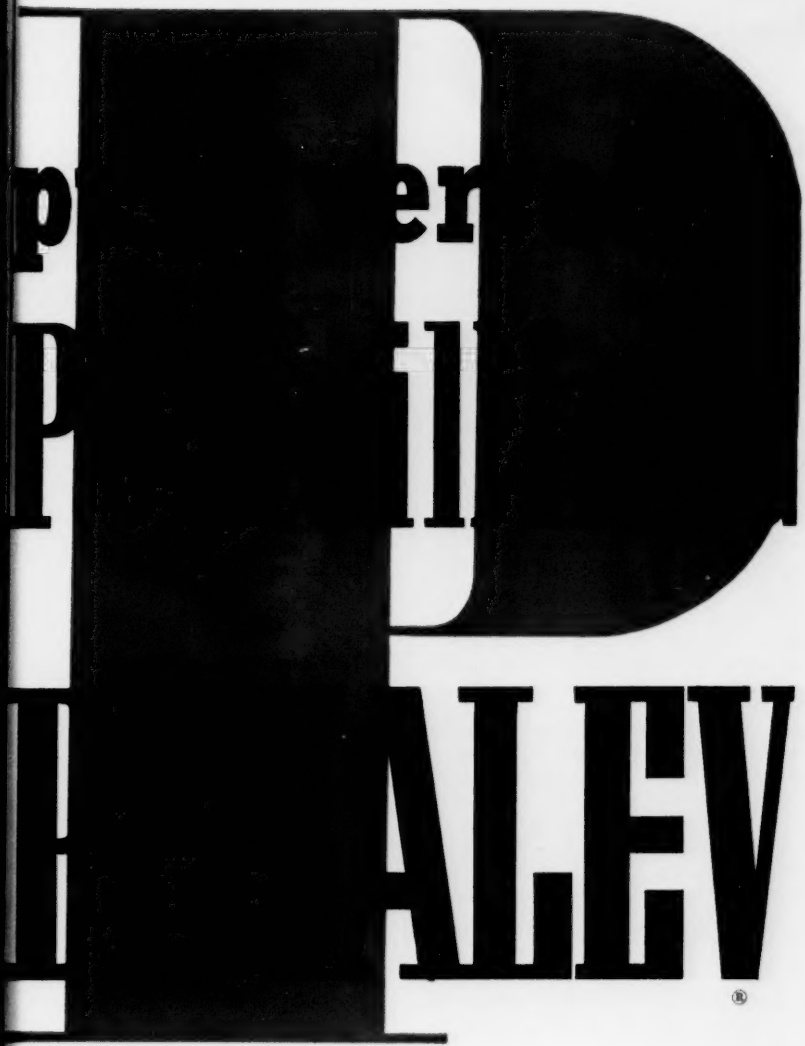
DIATHERMY: SHORT-WAVE THERAPY, INDUCTOTHERMY, EPITHERMY, LONG-WAVE THERAPY *by* William Beaumont. 2d ed. 230 pp., ill. H. K. Lewis & Co., London. 21*s*.

MANUAL THERAPY *by* James B. Mennell. 64 pp., ill. Charles C Thomas, Springfield, Ill. $2.25

Tuberculosis

DIE TUBERKULOSE: IHRE ERKENNUNG UND BEHANDLUNG *by* Hellmuth Deist *and* Hermann Krauss. 754 pp., ill. Ferdinand Enke, Stuttgart. 68 M.

GRUNDLINIEN ZUR RÖNTGENDIAGNOSTIK DER LUNGENTUBERKULOSE IM KINDES- UND ERWACHSENENALTER *by* Alfred Ravelli. 90 pp., ill. Wilhelm Maudrich, Vienna. 30 Sch.



PENALEV® Soluble Tablets of crystalline potassium penicillin-G are free from excipients or binders; dissolve promptly in liquids—particularly useful for administration to infants during regular bottle feedings. Also, PENALEV Soluble Tablets of crystalline potassium penicillin-G simplify preparation of solutions for aerosol therapy. 50,000 units—vials of 12, boxes of 24 (in foil strips), bottles of 100. 100,000 units—vials of 12, bottles of 100. 250,000 units—vials of 12. Sharp & Dohme, Phila. 1, Pa.

SHARP & DOHME

PATIENTS . . . *I Have Me*

The editors will pay $1 for each story published. No contributions will be returned. Send your experiences to the Patients I Have Met Editor, MODERN MEDICINE, 84 South Tenth St., Minneapolis 3, Minn.

The White Way

Vagotomy had been hotly discussed at the medical meeting. Surgeons in opposing camps had submitted pages of statistics to support their different views. When someone suggested that the statistics be read to the assemblage, one old practitioner arose to object.

"Gentlemen," he said, "from the discussion I am bound to conclude that surgeons use statistics as a drunk uses a lamppost: more for support than for illumination."

The tension was broken and the meeting went on to its other business.
—B.C.

The Eternal Question

I had just delivered the weary mother of another baby. It was her thirteenth. At the time I resolved to have a talk with her husband. The opportunity arose a few days later.

"Tony," I said, "isn't it time you and your wife stopped having children? Thirteen is a baker's dozen, you know."

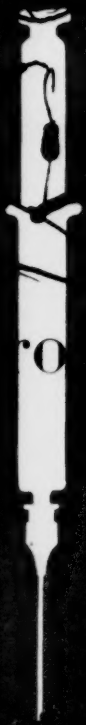
"Sure, Doc," Tony agreed, "but we haven't got a television set and where is the money coming from to get one?"
—W.J.B.

Clocked!

In dictating a hemorrhoidectomy operation to my secretary I said, "A large hemorrhoid was removed at 4 o'clock."

At that my secretary looked up and asked in all seriousness, "Do you want the time mentioned?"

When I explained that we designate the location of hemorrhoids when the patient is in a jackknife position according to the corresponding location on the face of the clock, we both had a good laugh.—M.J.T.



NEW...
finger-tip
therapy

now available

Antibiotic Division **Pfizer**

The Doctorial Look

One of my patients had had a hecti day. The laundry tub in the kitche had sprung a leak, and the cook wa suffering a migraine. Calls went out fo me and for the plumber. The plumbe beat me to the house and was met b the young hopeful of the household.

"I've come to fix that old tub in th kitchen," the plumber told him.

"Mother," called the little rascal, "th doctor is here to see the cook."—D.W.

Quantitative Defense

(Seen by A. B. in Arthur Krock's column i the New York Times.)

The keynote of the President's re marks, as it was identified and deplore in many groups in this political com munity, was not the enormity of th scandals revealed in tax collecting, bu the fugitive nature of these as a politica issue. This emphasis appeared in th course of a defensive argument (lik that about the illegitimate baby) to th effect that the area of the wrongdoing after all, was small. Though the countr has been shocked by the relation be tween official criminality and the collec tion of people's taxes, the President sai the condition is neither unusual no new.

"And would you know, my doctor insist that I exercise!"

it calls for

FER-IN-SOL

For iron deficiency anemia, medical authorities endorse pharmaceutical *iron and iron only.*

And ferrous sulfate in an acidulous vehicle is recognized as a most effective form of pharmaceutical iron.

FER-IN-SOL is a *concentrated* solution of *ferrous sulfate,* for convenient drop dosage.

Its piquant citrus flavor blends perfectly with fruit juices and leaves minimum aftertaste. Infants and children take it willingly.

Both the 15 and 50 cc. bottles of FER-IN-SOL are supplied with calibrated droppers.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

INDEX TO ADVERTISERS

NO BORIC ACID!

Diaparene® CHLORIDE

(METHYL BENZETHONIUM CHLORIDE)

BACTERICIDAL • WATER-MISCIBLE • SAFE[2,3]

The ever-present possibility of boric acid poisoning by transcutaneous absorption, when the skin is broken, indicates the physician's and nurse's need of making sure to recommend to every mother a "diaper rash" dusting powder and ointment containing *no boric acid.*

1. Fisher, R. S. "Notes from The Office of the Chief Medical Examiner," Baltimore, Md., April, 1951.
2. Benson, R. A., et al.: "The Treatment of Ammonia Dermatitis with Diaparene," J. Ped. 34:1-49, Jan., 1949.
3. Niedelman, M. L., et al.: "Ammonia Dermatitis. Treatment with Diaparene Chloride Ointment," J. Ped. 37:5-762, Nov., 1950.

PHARMACEUTICAL DIVISION, HOMEMAKERS' PRODUCTS CORPORATION, NEW YORK 10

ALZINOX

[Brand of Dihydroxy Aluminum Aminoacetate]

AN **A**NTACID WITH PROMPT
AND PRO**L**ONGED EFFECTIVENESS,
RECOGNI**Z**ING THE NEED FOR
FLEX**I**BLE BUFFER ACTION,
LOW ALUMI**N**UM CONTENT,
FREED**O**M FROM ACID REBOUND,
AND E**X**CEPTIONAL PATIENT-APPEAL

ALZINOX offers swift relief of pain in hyperacidity and uncomplicated cases of peptic ulcers.

ALZINOX Tablets and **ALZINOX** Magma are both highly acceptable to patients. The tablets are small enough, and disintegrate rapidly enough in the stomach, to be swallowed without chewing.

ALZINOX Tablets--0.5 Gm. (7½ gr.), bottles of 100 and 500

ALZINOX Magma--0.5 Gm. (7½ gr.) per 5 cc.; bottles of 8 fl.oz.

For extra sedation and spasmolysis:

Tablets **ALZINOX** with Phenobarbital (¼ gr.) and Homatropine Methyl Bromide (1/100 gr.), bottles of 100 and 500

Magma **ALZINOX** with Phenobarbital (⅛ gr. per 5 cc.) and Homatropine Methyl Bromide (1/100 gr. per 5 cc.); bottles of 8 fl.oz

THE
E. L. PATCH COMPANY
STONEHAM • MASSACHUSETTS

IMPROVED

SYMPTOMATIC CONTROL

IN . . .

colds, sinusitis

NEO-SYNEPHRINE® THENFADIL®

NASAL SOLUTION

"MORE DESIRABLE" VASOCONSTRICTOR "A number of substitutes for epinephrine and ephedrine have been developed...a more desirable preparation of this type has been perfected in Neo-Synephrine hydrochloride. It may be used for local application in the nose in ¼ to 1 per cent solution."[1]

HIGH ANTIHISTAMINIC POTENCY Comparative studies of Thenfadil hydrochloride, tripelennamine and thenylpyramine indicate that Thenfadil hydrochloride has the highest antihistaminic potency.[2,3]

POSITIVE, PROLONGED RELIEF In tests conducted by otorhinolaryngologists and allergists on patients with common colds, sinusitis, allergic rhinitis including hay fever and vasomotor rhinitis, excellent results were achieved in nearly all cases. There was prompt, prolonged decongestion without compensatory vasodilatation. Repeated doses did not reduce the consistent effectiveness.

SUPPLIED:

Neo-Synephrine Thenfadil Solution, bottles of 30 cc. (1 fl. oz.) with dropper.

Neo-Synephrine Thenfadil Jelly, ⅜ oz. tubes with nasal tip.

WELL TOLERATED — NO DROWSINESS

Dose: 2 or 3 drops up to ½ dropperful three or four times daily.

Neo-Synephrine Thenfadil solution contains 0.25 per cent Neo-Synephrine hydrochloride and 0.1 per cent Thenfadil [N,N-dimethyl-N′-(3-thenyl)-N′-(2-pyridyl) ethylenediamine] hydrochloride in an isotonic buffered aqueous vehicle.

Also Jelly: Neo-Synephrine 0.5 per cent and Thenfadil 0.1 per cent.

Winthrop-Stearns INC.

NEW YORK 18, N. Y. • WINDSOR, ONT.

1. Hansel, F. K.: Allergy of the Nose and Paranasal Sinuses. St. Louis, C. V. Mosby Co., 1946, p. 769.
2. Lands, A. M., Hoppe, J. O., Siegmund, O. H., and Luduena, F. P.: *Jour. Pharmacol. & Exper. Therap.*, 95:45, Jan., 1949.
3. Luduena, F. P., and Ananenko, E.: *Jour. Allergy*, 20:434, Nov. 1949.

Ciba

Presents

A New Advance

in Sulfonamide Safety...

ELKOSIN®

BRAND OF SULFADIMETINE

Scored 0.5 Gm. tablets.
Bottles of 100 and 1000.

- Remarkably low incidence of side effects—less than 5%
- Lowest acetylation yet reported—less than 10% in blood
- New improved solubility
- Renal complications rare—alkalis not needed
- High, sustained blood levels

WIDE ANTIBACTERIAL SPECTRUM

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, N. J. 2-1690M